

Product Datasheet

LETM1 Antibody - BSA Free

NBP1-33433

Unit Size: 100 ul

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

www.novusbio.com



technical@novusbio.com

Publications: 2

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP1-33433

Updated 9/9/2025 v.20.1

Earn rewards for product
reviews and publications.

Submit a publication at www.novusbio.com/publications

Submit a review at www.novusbio.com/reviews/destination/NBP1-33433



NBP1-33433

LETM1 Antibody - BSA Free

Product Information

Unit Size	100 ul
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.01% Thimerosal
Isotype	IgG
Purity	Antigen Affinity-purified
Buffer	0.1M Tris, 0.1M Glycine, 10% Glycerol
Target Molecular Weight	83 kDa

Product Description

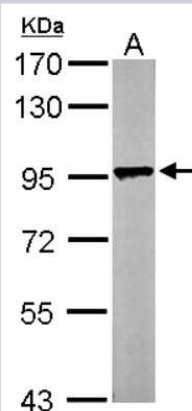
Description	Novus Biologicals Rabbit LETM1 Antibody - BSA Free (NBP1-33433) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-LETM1 Antibody: Cited in 2 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	3954
Gene Symbol	LETM1
Species	Human, Mouse
Reactivity Notes	Immunogen displays the following percentage of sequence identity for non-tested species: Rat (83%), Bovine (84%).
Immunogen	Recombinant protein encompassing a sequence within the C-terminus region of human LETM1. The exact sequence is proprietary.

Product Application Details

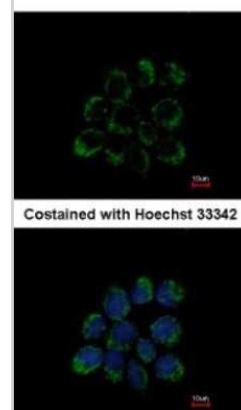
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 1:500-1:3000, Immunohistochemistry 1:100-1:1000, Immunocytochemistry/ Immunofluorescence 1:100-1:1000, Immunohistochemistry-Paraffin 1:100-1:1000

Images

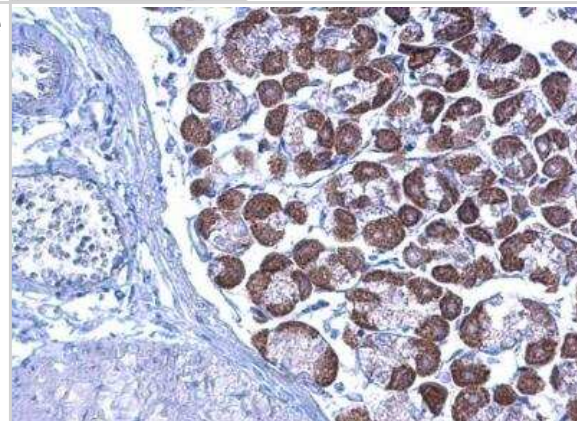
Western Blot: LETM1 Antibody [NBP1-33433] - Sample (50 ug of whole cell lysate) A: Mouse brain 7. 5% SDS PAGE; antibody diluted at 1:1000.



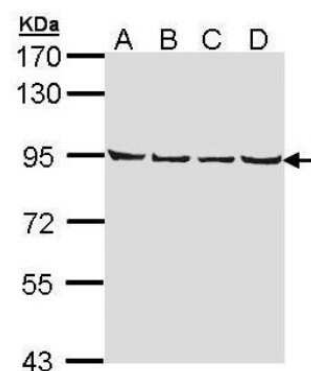
Immunocytochemistry/Immunofluorescence: LETM1 Antibody [NBP1-33433] - Analysis of methanol-fixed A431, using antibody at 1:200 dilution.



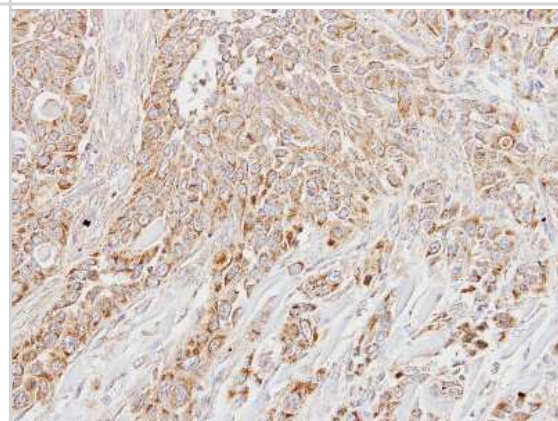
Immunohistochemistry-Paraffin: LETM1 Antibody [NBP1-33433] - Mouse stomach. LETM1 antibody diluted at 1:500. Antigen Retrieval: Trilogy™ (EDTA based, pH 8.0) buffer, 15min.



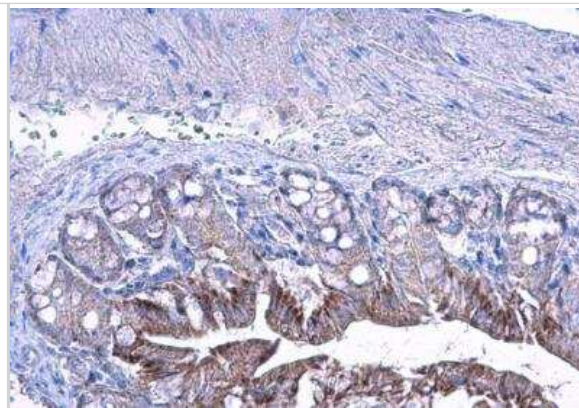
Western Blot: LETM1 Antibody [NBP1-33433] - A431 lysates (Lane A), H1299 lysates (Lane B), Hela cells (Lane C) and Hep G2 lysates (Lane D) using NBP1-33433 at a dilution of 1:1000.



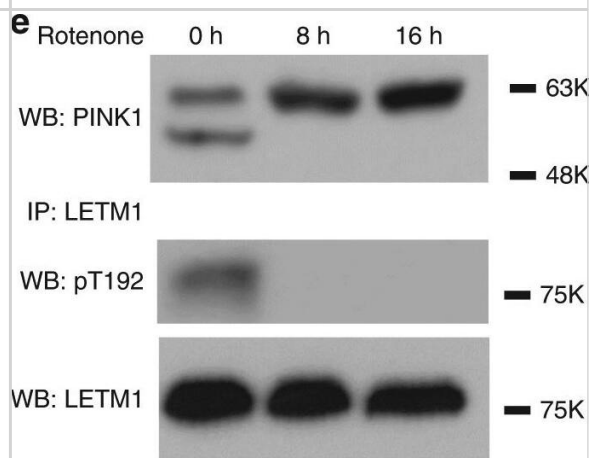
Immunohistochemistry-Paraffin: LETM1 Antibody [NBP1-33433] - HSC3 xenograft, using LETM1 antibody at 1:500 dilution. Antigen Retrieval: Trilogy™ (EDTA based, pH 8.0) buffer, 15min.



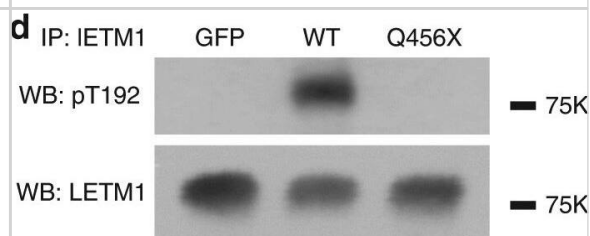
Immunohistochemistry-Paraffin: LETM1 Antibody [NBP1-33433] - Mouse colon. LETM1 antibody diluted at 1:500. Antigen Retrieval: Trilogy™ (EDTA based, pH 8.0) buffer, 15min.



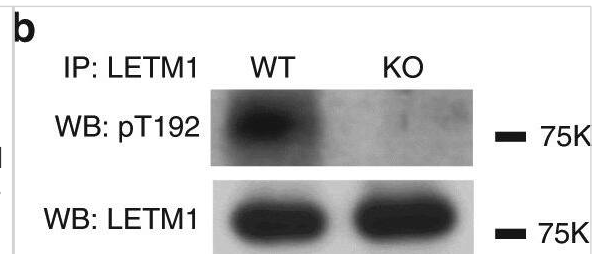
Deficiency or mutant PINK1 reduces phosphorylation of LETM1 at Thr192. a, b Proteins extracted from PINK1 WT or KO MEFs (a) or mouse brain (b) were subjected to IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 by WB. c Proteins extracted from human fibroblast of control (Con) or a PINK1-Q456X patient (Q456X) were subjected to IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 by WB. d HEK293 cells were transfected with Adtrack GFP control, AdPINK1-WT, & AdPINK1-Q456X mutant for 1 day. Endogenous LETM1 protein was isolated by IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 by WB. e SH-SY5Y cells were treated with 25 μ M rotenone for 8 or 16 h. Total cell lysates were either analyzed by WB with anti-PINK1, or subjected to IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 antibodies by WB. All above experiments were replicated three times, respectively Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29123128>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



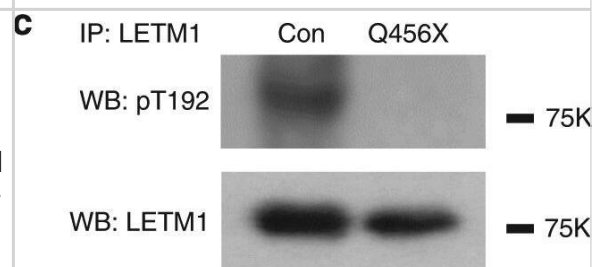
Western Blot: LETM1 Antibody [NBP1-33433] - Deficiency or mutant PINK1 reduces phosphorylation of LETM1 at Thr192. a, b Proteins extracted from PINK1 WT or KO MEFs (a) or mouse brain (b) were subjected to IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 by WB. c Proteins extracted from human fibroblast of control (Con) or a PINK1-Q456X patient (Q456X) were subjected to IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 by WB. d HEK293 cells were transfected with Adtrack GFP control, AdPINK1-WT, & AdPINK1-Q456X mutant for 1 day. Endogenous LETM1 protein was isolated by IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 by WB. e SH-SY5Y cells were treated with 25 μ M rotenone for 8 or 16 h. Total cell lysates were either analyzed by WB with anti-PINK1, or subjected to IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 antibodies by WB. All above experiments were replicated three times, respectively Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29123128>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



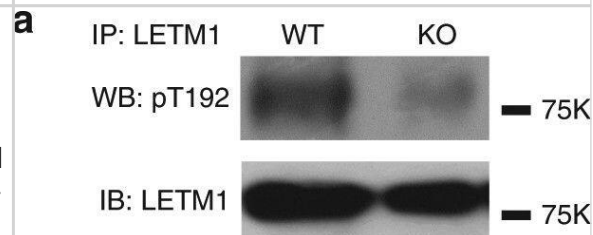
Western Blot: LETM1 Antibody [NBP1-33433] - Deficiency or mutant PINK1 reduces phosphorylation of LETM1 at Thr192. a, b Proteins extracted from PINK1 WT or KO MEFs (a) or mouse brain (b) were subjected to IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 by WB. c Proteins extracted from human fibroblast of control (Con) or a PINK1-Q456X patient (Q456X) were subjected to IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 by WB. d HEK293 cells were transfected with Adtrack GFP control, AdPINK1-WT, & AdPINK1-Q456X mutant for 1 day. Endogenous LETM1 protein was isolated by IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 by WB. e SH-SY5Y cells were treated with 25 μ M rotenone for 8 or 16 h. Total cell lysates were either analyzed by WB with anti-PINK1, or subjected to IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 antibodies by WB. All above experiments were replicated three times, respectively Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29123128>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: LETM1 Antibody [NBP1-33433] - Deficiency or mutant PINK1 reduces phosphorylation of LETM1 at Thr192. a, b Proteins extracted from PINK1 WT or KO MEFs (a) or mouse brain (b) were subjected to IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 by WB. c Proteins extracted from human fibroblast of control (Con) or a PINK1-Q456X patient (Q456X) were subjected to IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 by WB. d HEK293 cells were transfected with Adtrack GFP control, AdPINK1-WT, & AdPINK1-Q456X mutant for 1 day. Endogenous LETM1 protein was isolated by IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 by WB. e SH-SY5Y cells were treated with 25 μ M rotenone for 8 or 16 h. Total cell lysates were either analyzed by WB with anti-PINK1, or subjected to IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 antibodies by WB. All above experiments were replicated three times, respectively Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29123128>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



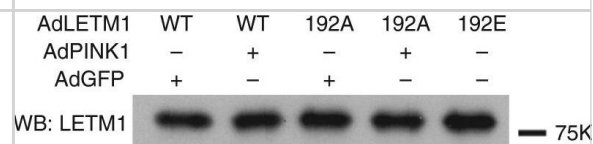
Western Blot: LETM1 Antibody [NBP1-33433] - Deficiency or mutant PINK1 reduces phosphorylation of LETM1 at Thr192. a, b Proteins extracted from PINK1 WT or KO MEFs (a) or mouse brain (b) were subjected to IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 by WB. c Proteins extracted from human fibroblast of control (Con) or a PINK1-Q456X patient (Q456X) were subjected to IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 by WB. d HEK293 cells were transfected with Adtrack GFP control, AdPINK1-WT, & AdPINK1-Q456X mutant for 1 day. Endogenous LETM1 protein was isolated by IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 by WB. e SH-SY5Y cells were treated with 25 μ M rotenone for 8 or 16 h. Total cell lysates were either analyzed by WB with anti-PINK1, or subjected to IP with anti-LETM1, probed with pT192 & reprobed with anti-LETM1 antibodies by WB. All above experiments were replicated three times, respectively Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29123128>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



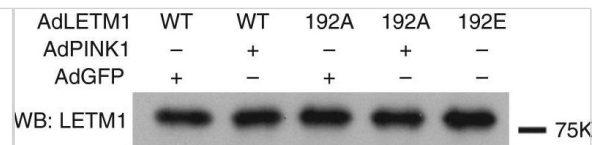
Western Blot: LETM1 Antibody [NBP1-33433] - The effect of PINK1-mediated phosphorylation of LETM1 on liposomes calcium release activity in vitro. a About 1 μ g purified bacterial full-length His-LETM1-WT, T175E, & T192E were incorporated into liposomes & subjected to calcium release assay. Control (Con) indicates no proteins incorporated. b (top panel) Quantification of calcium release activity measured by rate of calcium release & calculated as change of fluorescence unit (ΔF). n = 6. (bottom panel) The liposome samples in a were analyzed by WB with anti-LETM1 antibody to show loading of proteins. c HEK293 cells were co-transfected with pAdtrack LETM1 (AdLETM1)-WT or T192A & Adtrack control GFP (AdGFP, WT, T192A) or PINK1 (AdPINK1, pWT, pT192A), & AdLETM1-T192E only for 1 day. The FLAG-LETM1 proteins were isolated by IP with anti-FLAG, probed with pT192 or anti-LETM1 by WB. The experiment was replicated three times. d HEK293 cells were co-transfected with AdLETM1-WT or T192A & AdGFP or AdPINK1, & AdLETM1-T192E only for 1 day. The FLAG-LETM1 proteins were isolated by IP with anti-FLAG & eluted by 3XFLAG peptide. The eluted proteins were subjected to calcium release assay using artificial liposomes. Control is without protein incorporated. e (top panel) Quantification of calcium release activity of d measured by rate of calcium release & calculated as change of fluorescence unit (ΔF). n = 6. (bottom panel) The liposomes samples in d were subjected to WB with anti-LETM1 antibody to show similar loading of proteins Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29123128>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



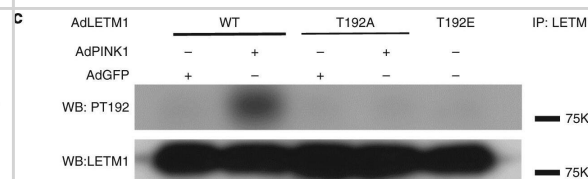
Western Blot: LETM1 Antibody [NBP1-33433] - The effect of PINK1-mediated phosphorylation of LETM1 on liposomes calcium release activity in vitro. a About 1 μ g purified bacterial full-length His-LETM1-WT, T175E, & T192E were incorporated into liposomes & subjected to calcium release assay. Control (Con) indicates no proteins incorporated. b (top panel) Quantification of calcium release activity measured by rate of calcium release & calculated as change of fluorescence unit (ΔF). n = 6. (bottom panel) The liposome samples in a were analyzed by WB with anti-LETM1 antibody to show loading of proteins. c HEK293 cells were co-transfected with pAdtrack LETM1 (AdLETM1)-WT or T192A & Adtrack control GFP (AdGFP, WT, T192A) or PINK1 (AdPINK1, pWT, pT192A), & AdLETM1-T192E only for 1 day. The FLAG-LETM1 proteins were isolated by IP with anti-FLAG, probed with pT192 or anti-LETM1 by WB. The experiment was replicated three times. d HEK293 cells were co-transfected with AdLETM1-WT or T192A & AdGFP or AdPINK1, & AdLETM1-T192E only for 1 day. The FLAG-LETM1 proteins were isolated by IP with anti-FLAG & eluted by 3XFLAG peptide. The eluted proteins were subjected to calcium release assay using artificial liposomes. Control is without protein incorporated. e (top panel) Quantification of calcium release activity of d measured by rate of calcium release & calculated as change of fluorescence unit (ΔF). n = 6. (bottom panel) The liposomes samples in d were subjected to WB with anti-LETM1 antibody to show similar loading of proteins Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29123128>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: LETM1 Antibody [NBP1-33433] - The effect of PINK1-mediated phosphorylation of LETM1 on liposomes calcium release activity in vitro. a About 1 μ g purified bacterial full-length His-LETM1-WT, T175E, & T192E were incorporated into liposomes & subjected to calcium release assay. Control (Con) indicates no proteins incorporated. b (top panel) Quantification of calcium release activity measured by rate of calcium release & calculated as change of fluorescence unit (ΔF). n = 6. (bottom panel) The liposome samples in a were analyzed by WB with anti-LETM1 antibody to show loading of proteins. c HEK293 cells were co-transfected with pAdtrack LETM1 (AdLETM1)-WT or T192A & Adtrack control GFP (AdGFP, WT, T192A) or PINK1 (AdPINK1, pWT, pT192A), & AdLETM1-T192E only for 1 day. The FLAG-LETM1 proteins were isolated by IP with anti-FLAG, probed with pT192 or anti-LETM1 by WB. The experiment was replicated three times. d HEK293 cells were co-transfected with AdLETM1-WT or T192A & AdGFP or AdPINK1, & AdLETM1-T192E only for 1 day. The FLAG-LETM1 proteins were isolated by IP with anti-FLAG & eluted by 3XFLAG peptide. The eluted proteins were subjected to calcium release assay using artificial liposomes. Control is without protein incorporated. e (top panel) Quantification of calcium release activity of d measured by rate of calcium release & calculated as change of fluorescence unit (ΔF). n = 6. (bottom panel) The liposomes samples in d were subjected to WB with anti-LETM1 antibody to show similar loading of proteins Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29123128>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: LETM1 Antibody [NBP1-33433] - The effect of PINK1-mediated phosphorylation of LETM1 on liposomes calcium release activity in vitro. a About 1 μ g purified bacterial full-length His-LETM1-WT, T175E, & T192E were incorporated into liposomes & subjected to calcium release assay. Control (Con) indicates no proteins incorporated. b (top panel) Quantification of calcium release activity measured by rate of calcium release & calculated as change of fluorescence unit (ΔF). n = 6. (bottom panel) The liposome samples in a were analyzed by WB with anti-LETM1 antibody to show loading of proteins. c HEK293 cells were co-transfected with pAdtrack LETM1 (AdLETM1)-WT or T192A & Adtrack control GFP (AdGFP, WT, T192A) or PINK1 (AdPINK1, pWT, pT192A), & AdLETM1-T192E only for 1 day. The FLAG-LETM1 proteins were isolated by IP with anti-FLAG, probed with pT192 or anti-LETM1 by WB. The experiment was replicated three times. d HEK293 cells were co-transfected with AdLETM1-WT or T192A & AdGFP or AdPINK1, & AdLETM1-T192E only for 1 day. The FLAG-LETM1 proteins were isolated by IP with anti-FLAG & eluted by 3XFLAG peptide. The eluted proteins were subjected to calcium release assay using artificial liposomes. Control is without protein incorporated. e (top panel) Quantification of calcium release activity of d measured by rate of calcium release & calculated as change of fluorescence unit (ΔF). n = 6. (bottom panel) The liposomes samples in d were subjected to WB with anti-LETM1 antibody to show similar loading of proteins Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29123128>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Huang E, Qu D et al. PINK1-mediated phosphorylation of LETM1 regulates mitochondrial calcium transport and protects neurons against mitochondrial stress. Nat Commun 2017-09-11 [PMID: 29123128] (WB, Mouse)

Aral C, Demirkesen S, Bircan R, Yasar Sirin D Melatonin reverses the oxidative stress and mitochondrial dysfunction caused by LETM1 silencing Cell Biol. Int. 2019-11-27 [PMID: 31777134] (WB, Mouse)





Novus Biologicals USA

10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada

21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd

19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information

www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Products Related to NBP1-33433

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NBP1-33433

Earn gift cards/discounts by submitting a publication using this product:
www.novusbio.com/publications

