

Product Datasheet

ERR alpha/NR3B1 Antibody - BSA Free NBP1-47254

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

www.novusbio.com



technical@novusbio.com

Publications: 7

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP1-47254

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/NBP1-47254



NBP1-47254

ERR alpha/NR3B1 Antibody - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.1% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS and 30% Glycerol
Target Molecular Weight	50 kDa
Product Description	
Description	Novus Biologicals Rabbit ERR alpha/NR3B1 Antibody - BSA Free (NBP1-47254) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-ERR alpha/NR3B1 Antibody: Cited in 7 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	2101
Gene Symbol	ESRRA
Species	Human, Mouse
Reactivity Notes	Predicted to react with rat, pig and dog based on 100% sequence homology.
Immunogen	Synthetic peptide made to an N-terminal portion of human Estrogen Related Receptor alpha (within residues 1-50). [Swiss-Prot# P11474]
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 2 ug/ml, Immunohistochemistry 2 ug/ml, Immunocytochemistry/Immunofluorescence 1:100, Immunohistochemistry-Paraffin 2 ug/ml
Application Notes	This Estrogen Related Receptor alpha antibody is useful for Western Blot, Immunohistochemistry-Paraffin and Immunocytochemistry/Immunofluorescence applications. ERR alpha/ ESRRA localize mainly to the nucleus, but there are reports on its cytoplasmic presence also, especially in cells with high nuclear expression. In a feedback loop mechanism, it has been shown that ERK8 /MAPK15 interacts with ERR alpha to induce its CRM1-dependent translocation to cytoplasm for inhibiting its transcriptional activity via regulation of its cellular localization (PMIDs 21190936, 18070081). The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.

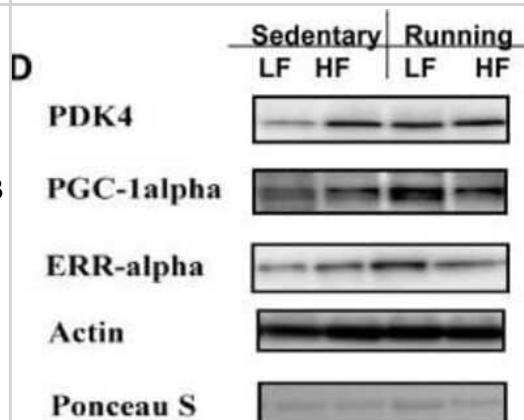


Images

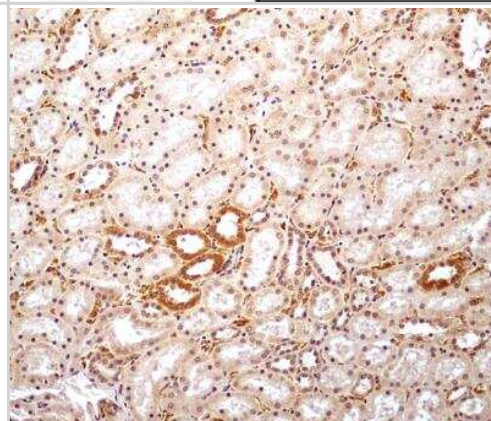
Immunocytochemistry/Immunofluorescence: ERR alpha/NR3B1 Antibody [NBP1-47254] - HeLa cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.5% Triton X-100 in PBS for 5 minutes. The cells were incubated with conjugated to DyLight 488 (NBP1-47254G) at 5 ug/ml for 1 hour at room temperature. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



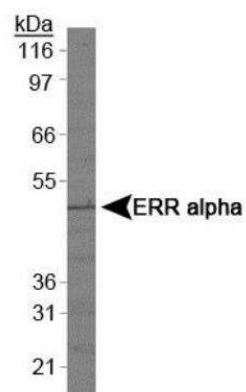
Western Blot: ERR alpha/NR3B1 Antibody [NBP1-47254] - The protein expression levels in QF muscle. Representative Western blot images. n = 14-15 animals/group. *=vs. LFsed (P <0.05), NS = non-significant (P>0.1). Black bars = sedentary, grey bars = running. Image collected and cropped by CiteAb from the following publication (<https://nutritionandmetabolism.biomedcentral.com/articles/10.1186/1743-7075-9-53>), licensed under a CC-BY license.



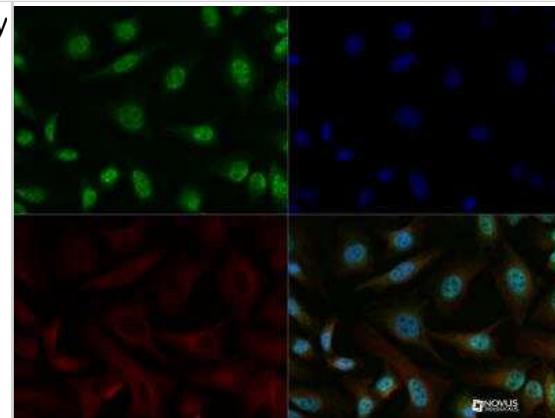
Immunohistochemistry-Paraffin: ERR alpha/NR3B1 Antibody [NBP1-47254] - IHC-P detection of ERR alpha/ESRRA protein in a section of normal human kidney using 5 ug/ml concentration of Estrogen Related Receptor alpha antibody. Some cells of tubules/ducts in the tested renal tissue depicted intense nuclear staining with an overall weak/diffused cytoplasmic staining. (10X Magnification)



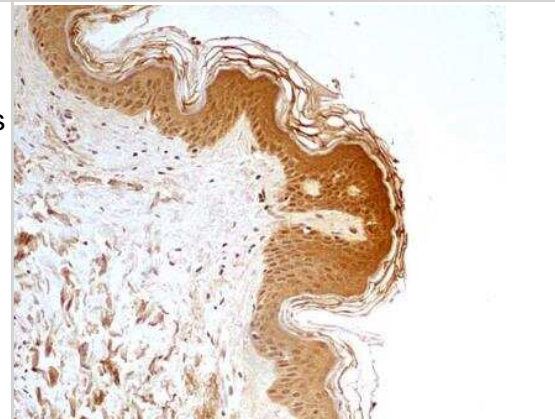
Western Blot: ERR alpha/NR3B1 Antibody [NBP1-47254] - Analysis of ERR alpha in A431 cell lysates



Immunocytochemistry/Immunofluorescence: ERR alpha/NR3B1 Antibody [NBP1-47254] - ERR alpha antibody was tested in HeLa cells at a 1:100 dilution against Dylight 488 (Green). Alpha tubulin and nuclei were counterstained against Dylight 568 (Red) and DAPI (Blue), respectively.



Immunohistochemistry-Paraffin: ERR alpha/NR3B1 Antibody [NBP1-47254] - IHC-P detection of ERR alpha / ESRR A protein in a section of normal skin of human using 5 ug/ml concentration of Estrogen Related Receptor alpha antibody. The different cell types in the cellular epidermis as well as the blood vessels in the dermal layer showed positivity for ERR alpha, and the staining was found to be more intense in the nuclei compared to cytoplasm. (10X Magnification)



Publications

Kim M, Kim J, Moon S et al. Korean Red Ginseng Improves Astrocytic Mitochondrial Function by Upregulating HO-1-Mediated AMPK alpha-PGC-1 alpha-ERR alpha Circuit after Traumatic Brain Injury International journal of molecular sciences 2021-12-03 [PMID: 34884886] (WB, Human, Mouse)

Wang L, Yang M, Jin H PI3K/AKT phosphorylation activates ERR alpha by upregulating PGC-1 alpha and PGC-1 beta in gallbladder cancer Molecular medicine reports 2021-08-01 [PMID: 34184087] (WB)

Hauck L, Stanley-Hasnain S, Fung A et al. Cardiac-specific ablation of the E3 ubiquitin ligase Mdm2 leads to oxidative stress, broad mitochondrial deficiency and early death PLoS ONE 2017-12-21 [PMID: 29267372] (WB, Mouse)

Mak TW, Hauck L, Grothe D, Billia F. p53 regulates the cardiac transcriptome. Proc. Natl. Acad. Sci. U.S.A. 2017-02-28 [PMID: 28193895]

Hwang J, Purdy JG, Wu K et al. Estrogen-related receptor alpha is required for efficient human cytomegalovirus replication. Proc. Natl. Acad. Sci. U.S.A. 2014-12-30 [PMID: 25512541] (WB, Human)

Silvennoinen M, Rinnankoski-Tuikka R et al. High-fat feeding induces angiogenesis in skeletal muscle and activates angiogenic pathways in capillaries Angiogenesis 2012-10-23 [PMID: 23090645] (WB, Human)

Rinnankoski-Tuikka R, Silvennoinen M, Torvinen S et al. Effects of high-fat diet and physical activity on pyruvate dehydrogenase kinase-4 in mouse skeletal muscle Nutr Metab (Lond) 2012-06-09 [PMID: 22682013] (WB, Mouse)

Procedures

Protocol specific for ERR alpha Antibody (NBP1-45282)

ERR alpha/NR3B1 Antibody:

Western Blot Protocol

1. Perform SDS-PAGE (4-12% MOPS) on samples to be analyzed, loading 35 ug of total protein per lane.
2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.
3. Rinse membrane with dH₂O and then stain the blot using Ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.
4. Rinse the blot in TBS for approximately 5 minutes.
5. Block the membrane using 5% NFD_M + 1% BSA in TBS + Tween, 1 hour at RT.
6. Rinse the membrane in dH₂O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
7. Dilute the rabbit anti-ERR alpha primary antibody (NBP1-45282) in blocking buffer and incubate 1 hour at room temperature.
8. Rinse the membrane in dH₂O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
9. Apply the diluted rabbit-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions (Pierce ECL).

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.





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 NBP1-47254

NB800-PC1	HeLa Whole Cell Lysate
NBP1-47254PEP	ERR alpha/NR3B1 Antibody Blocking Peptide
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/NBP1-47254

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



