

Product Datasheet

beta Amyloid [Pyro Glu3] Antibody - BSA Free NBP1-44048

Unit Size: 0.05 mg

Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.

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NBP1-44048

beta Amyloid [Pyro Glu3] Antibody - BSA Free

| Product Information | |
|----------------------|---|
| Unit Size | 0.05 mg |
| Concentration | Please see the vial label for concentration. If unlisted please contact technical services. |
| Storage | Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles. |
| Clonality | Polyclonal |
| Preservative | 0.01% Sodium Azide |
| Isotype | IgG |
| Purity | Immunogen affinity purified |
| Buffer | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 |

| Product Description | |
|--------------------------------|---|
| Description | This antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography Store vial at -20C prior to opening. Aliquot contents and freeze at -20C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4C as an undiluted liquid. Dilute only prior to immediate use. |
| Host | Rabbit |
| Gene ID | 351 |
| Gene Symbol | APP |
| Species | Human, Mouse, Canine, Drosophila |
| Reactivity Notes | A BLAST analysis was used to suggest cross-reactivity with Primate, Bovine and Sheep based on 100% sequence homology. Mouse reactivity reported in scientific literature (PMID: 31434879). |
| Specificity/Sensitivity | This antibody contains no reactivity towards the 1-42 ABeta peptide. |
| Immunogen | beta Amyloid [Pyro Glu3] Antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to the N-terminus 3-pyro E start point of human beta Amyloid. (Uniprot: P05067) |

| Product Application Details | |
|------------------------------|--|
| Applications | Western Blot, Immunohistochemistry-Paraffin, ELISA, Immunoassay, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen |
| Recommended Dilutions | Western Blot 1 ug/ml, ELISA 1:20000-1:60000, Immunohistochemistry 1:100-1:500, Immunocytochemistry/ Immunofluorescence 1:100-1:500, Immunohistochemistry-Paraffin 1:500-1:1000, Immunohistochemistry-Frozen, Immunoassay |



Application Notes

This product has been tested in dot blot, ELISA, Western Blot, and Immunostaining. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~86.9kDa corresponding to the appropriate cell lysate or extract.

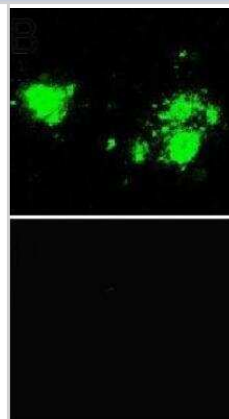
Use in Immunohistochemistry-Frozen reported in scientific literature (PMID: 27776266).

Use in Immunoassay reported in scientific literature (PMID: 26208119).

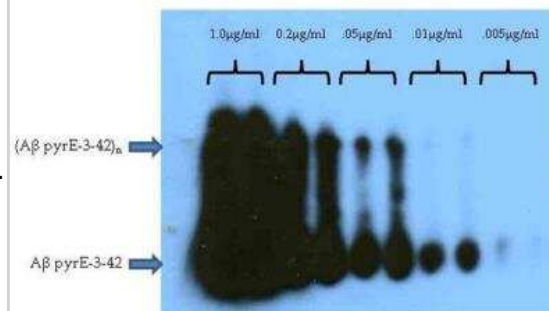


Images

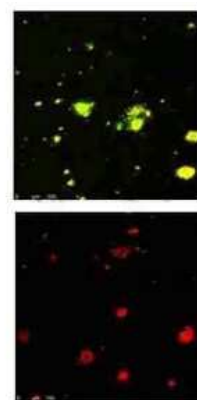
Immunocytochemistry/Immunofluorescence: beta Amyloid [Pyro Glu3] Antibody [NBP1-44048] - Laser scanning confocal microscopy was carried out using human tissue sections from frontal cortex. Figure A shows an example section that was immunostained for the presence of pyrE3Abeta (green). Figure B shows that the immunogen peptide completely blocked the NBP1-44048 antibody.



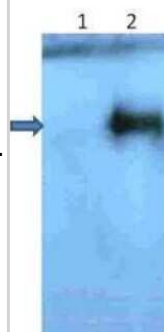
Western Blot: beta Amyloid [Pyro Glu3] Antibody [NBP1-44048] - Lane 1-10: beta Amyloid pyro E3 peptide. Load: 1 ug per lane 1-2, 0.2 ug per lane 3-4, 0.05 ug per lane 5-6, 0.01 ug per lane 7-8, 0.005 ug per lane 9-10. Primary antibody: Beta Amyloid pyro E3 antibody at 0.5 ug/mL for overnight at 4C. Secondary antibody: IRDye800 rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4C. Predicted/Observed size: 86.9 kDa for beta Amyloid pyro E3 peptide. Cross reactivity with Beta Amyloid 3 peptide is >1000 fold below pyrE3 reactivity and contains no reactivity towards the Beta Amyloid 42 A beta peptide (data not shown).



Immunocytochemistry/Immunofluorescence: beta Amyloid [Pyro Glu3] Antibody [NBP1-44048] - Tissue: human brain section. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: beta Amyloid pyro E3 antibody at 5 ug/mL for 1 h at RT. Secondary antibody: Rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: beta Amyloid pyro E3 is nuclear and cytoplasmic. Staining: Top: Beta Amyloid pyro E3 as as green fluorescent signal, Beta Amyloid 3 as yellow signal; and Bottom: Beta Amyloid 3 as red signal with co-incubation of Beta Amyloid pyro E3 peptide.



Western Blot: beta Amyloid [Pyro Glu3] Antibody [NBP1-44048] - Lane 1: beta Amyloid 3 peptide Lane 2: beta Amyloid pyro E3 peptide. Load: 1 ug per lane. Primary antibody: Beta Amyloid pyro E3 antibody at 2ug/mL for overnight at 4C. Secondary antibody: IRDye800 rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4C. Predicted/Observed size: 86.9 kDa for beta Amyloid pyro E3 peptide.



Publications

William J. Behof, Justin R. Haynes, Clayton A. Whitmore, Yiu-Yin Cheung, Mohammed N. Tantawy, Todd E. Peterson, Printha Wijesinghe, Joanne A. Matsubara, Wellington Pham Synthesis and Evaluation of a Novel PET Radioligand for Imaging Glutaminyl Cyclase Activity as a Biomarker for Detecting Alzheimer's Disease ACS Sensors 2024-05-08 [PMID: 38718161]

Tan Z, Garduno BM, Aburto PF et al. Cognitively impaired aged Octodon degus recapitulate major neuropathological features of sporadic Alzheimer's disease Acta neuropathologica communications 2022-12-19 [PMID: 36529803] (IHC-FrFI, Mouse)

Details:

Dilution used in IHC-FrFI 1:500

Davis PR, Giannini G, Rudolph K et al. AB vaccination in combination with behavioral enrichment in aged beagles: effects on cognition, AB, and microhemorrhages. Neurobiol Aging. [PMID: 27776266] (IHC-Fr, Canine)

Spangenberg E, Severson PL, Hohsfield LA et al. Sustained microglial depletion with CSF1R inhibitor impairs parenchymal plaque development in an Alzheimer's disease model Nat Commun 2019-08-21 [PMID: 31434879] (IF/IHC, Mouse)

Jonson M, Pokrzywa M, Starkenberg A et al. Systematic Ab Analysis in Drosophila Reveals High Toxicity for the 1-42, 3-42 and 11-42 Peptides, and Emphasizes N- and C-Terminal Residues PLoS ONE. 2015-07-25 [PMID: 26208119] (IA, Drosophila)

Schilling S, Lauber T, Schaupp M, Manhart S, Scheel E, Bohm G, Demuth HU. On the seeding and oligomerization of pGlu-amyloid peptides (in vitro). Biochemistry;45(41):12393-9. 2006-10-17 [PMID: 17029395]

He W, Barrow CJ. The A beta 3-pyroglutanyl and 11-pyroglutanyl peptides found in senile plaque have greater beta-sheet forming and aggregation propensities in vitro than full-length A beta. Biochemistry;38(33):10871-7. 1999-08-17 [PMID: 10451383]





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 NBP1-44048

| | |
|------------|---|
| HAF008 | Goat anti-Rabbit IgG Secondary Antibody [HRP] |
| NB7160 | Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP] |
| NBP2-24891 | Rabbit IgG Isotype Control |
| 210-TA-005 | TNF-alpha [Unconjugated] |

Limitations

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