Product Datasheet

TOR/mTOR [p Ser2448] Antibody - BSA Free
NB600-607

Unit Size: 0.1 mg

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

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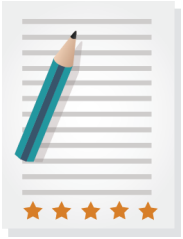
Updated 2/21/2025 v.20.1



NB600-607

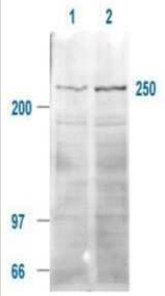
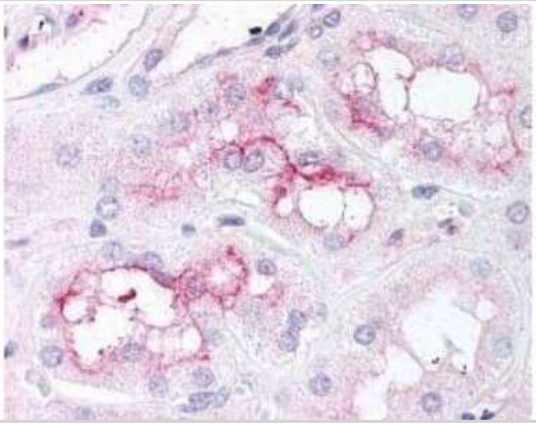
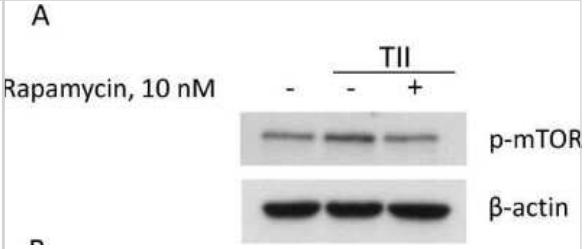
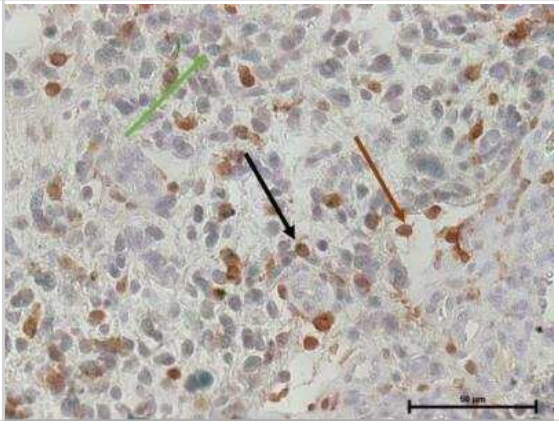
TOR/mTOR [p Ser2448] Antibody - BSA Free

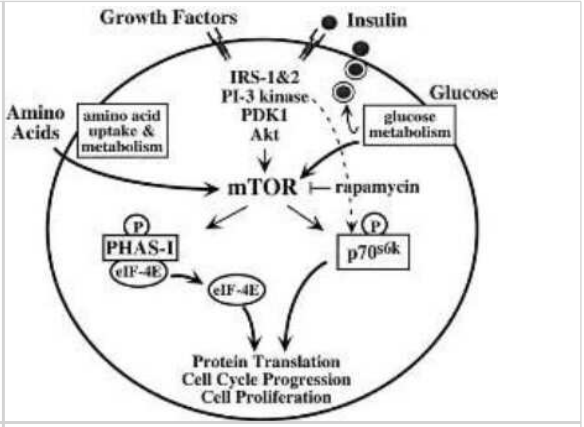
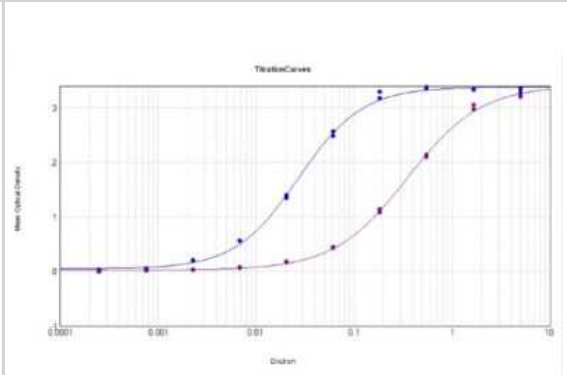
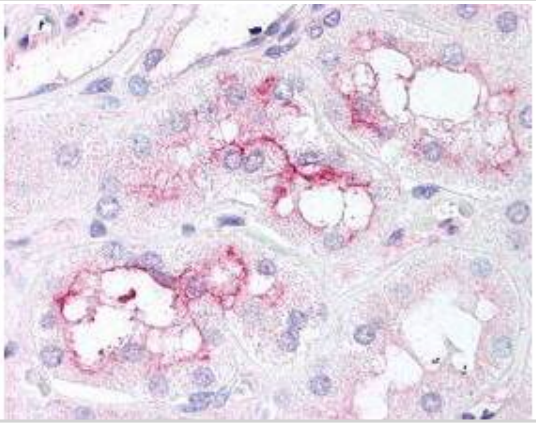
Product Information	
Unit Size	0.1 mg
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.01% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Product Description	
Description	This is an affinity purified antibody produced by immunoaffinity chromatography using the immunizing peptide after immobilization to a solid phase 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	2475
Gene Symbol	MTOR
Species	Human, Rat
Reactivity Notes	Reactivity against TOR/mTOR from other species has not been determined, however, reactivity with mouse is suggested based on protein sequence homologies
Specificity/Sensitivity	Reactivity occurs with phosphorylated mTOR from human derived tissues and cells. Reactivity against mTOR from other species has not been determined, however, reactivity with mouse and rat is suggested based on protein sequence homologies.
Immunogen	TOR/TOR/mTOR [p Ser2448] Antibody was prepared from whole rabbit serum produced by repeated immunizations with a phosphorylated synthetic peptide corresponding a c-terminal region near Serine 2448 of human TOR/mTOR. (Uniprot: P42345)

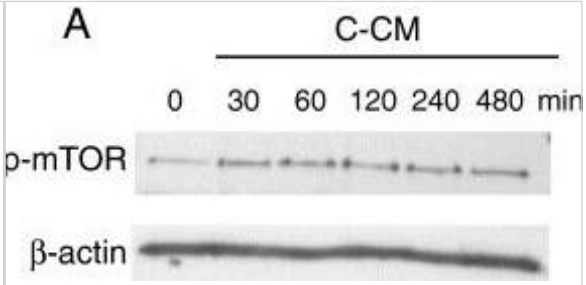
Product Application Details	
Applications	Western Blot, ELISA, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1:500-1:2000, ELISA 1:10000-1:100000, Immunohistochemistry 5.0 ug/ml, Immunohistochemistry-Paraffin 5 ug/ml
Application Notes	This affinity purified antibody has been tested for use in immunohistochemistry, ELISA and western blotting. Western blotting shows reactivity specific for phospho mTOR detecting a band at approximately 250 kDa. Reactivity in other immunoassays is unknown.

Images

Western Blot: TOR/mTOR [p Ser2448] Antibody [NB600-607] - Affinity Purified TOR/TOR/mTOR [p Ser2448] antibody is shown to detect a 250 kDa band (indicated) corresponding to phosphorylated human TOR/mTOR present in a 293T whole cell lysates. Cells were serum-starved for 24 hours prior to harvest. ~20 ug of lysate was loaded per lane for SDS-PAGE. Untreated cells are shown in lane 1, whereas cells in lane 2 were treated with IGF-1 (100 ng/ml) for 20 min prior to harvest. Follow reaction of antibody with a 1:2000 dilution of HRP Goat-a-Rabbit IgG for visualization.	
Immunohistochemistry: TOR/mTOR [p Ser2448] Antibody [NB600-607] - affinity purified TOR/TOR/mTOR [p Ser2448] antibody was used at 5 ug/ml to detect signal in a variety of tissues including multi-human, multi-brain and multi-cancer slides. This image shows moderate staining of proximal convoluted tubules of the kidney (40X). Tissue was formalin-fixed and paraffin embedded. The image shows localization of the antibody as the precipitated red signal, with a hematoxylin purple nuclear counterstain.	
Western Blot: TOR/mTOR [p Ser2448] Antibody [NB600-607] - Rapamycin reduces mTOR phosphorylation induced by TII. Whole-cell lysates were prepared from astrocytes activated with TII for 2 h. 10 nM Rapamycin was added at the beginning of the experiment and equal amounts of protein were analyzed by western blot for phosphorylated mTOR kinase (p-mTOR) (upper gel) and consequently for beta-actin (lower gel). Image collected and cropped by CiteAb from the following publication (https://jneuroinflammation.biomedcentral.com/articles/10.1186/1742-2094-8-1), licensed under a CC-BY license.	
Immunohistochemistry-Paraffin: TOR/mTOR [p Ser2448] Antibody [NB600-607] - Brown arrow= IBa1 positive cells, Green arrow= mTOR positive cells, Black arrow= mTOR and IBA1 positive cells. IHC-P Image submitted by a verified customer review.	

TOR/mTOR [p Ser2448] Antibody [NB600-607]	
ELISA: TOR/mTOR [p Ser2448] Antibody [NB600-607] - ELISA Results of TOR/TOR/mTOR [p Ser2448] antibody tested against BSA-conjugated non-phospho [purple line] and phospho [blue line] forms of immunizing peptide. Each well was coated in duplicate with either 0.1ug of conjugate. The working dilution is 1:37,000. The starting dilution of antibody was 5ug/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using HRP conjugate stabilizer, Goat Anti-Rabbit HRP conjugated and TMB substrate.	
affinity purified anti-mTOR pS 2448 antibody was used at 5 ug/ml to detect signal in a variety of tissues including multi-human, multi-brain and multi-cancer slides. This image shows moderate staining of proximal convoluted tubules of the kidney (40X). Tissue was formalin-fixed and paraffin embedded. The image shows localization of the antibody as the precipitated red signal, with a hematoxylin purple nuclear counterstain. Personal Communication, Tina Roush, LifeSpanBiosciences, Seattle, WA.	
Western Blot: TOR/mTOR [p Ser2448] Antibody [NB600-607] - Analysis of mTOR phosphorylation during microglial activation(A) Whole-cell lysates were prepared from microglial cells incubated for 2 h as indicated. Equal amounts of proteins were analyzed by western blot for phosphorylated mTOR kinase (p-mTOR), upper gel. The same blots were subsequently probed for β-actin, lower gel. (B) Quantitation of densitometry where p-mTOR values are reflected relative to those for β-actin. Data are expressed as means±S.E.M. of n=1 replicate for each group, each assayed in triplicates. Representative of two different experiments. Data were analyzed by one-way ANOVA followed by the Bonferroni's post hoc test. ***P<0.001 versus Control, °P<0.05 versus C-CM. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/24689533), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Western Blot: TOR/mTOR [p Ser2448] Antibody [NB600-607] - Analysis of mammalian target of rapamycin (mTOR) phosphorylation during microglial activation. Whole-cell lysates were prepared from microglial cells activated by control-conditioned medium (C-CM) (A) or CM from glioma cells activated with lipopolysaccharide (LPS)/IFNγ (LI-CM) (B). Equal amounts of proteins were analyzed by western blot for phosphorylated mTOR kinase (p-mTOR), upper gel & were subsequently probed for β-actin, lower gel. Quantitation of densitometry where p-mTOR values are reflected relative to those for β-actin. Data are expressed as means ± standard error of the mean of n = 1 replicate for each group, each assayed in triplicate: representative of two different experiments. Data were analyzed by one-way analysis of variance followed by Bonferroni post hoc test. ***P <0.001 versus control. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/25051975), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Cappoli N, Mezzogori D, Tabolacci E, Coletta I THE mTOR KINASE INHIBITOR RAPAMYCIN ENHANCES THE EXPRESSION AND RELEASE OF PRO-INFLAMMATORY CYTOKINE INTERLEUKIN 6 MODULATING THE ACTIVATION OF HUMAN MICROGLIAL CELLS EXCLI J 2019-10-25 [PMID: 31645839]

Serafin V, PorcU E, Cortese G et al. SYK Targeting Represents a Potential Therapeutic Option for Relapsed Resistant Pediatric ETV6-RUNX1 B-Acute Lymphoblastic Leukemia Patients Int J Mol Sci 2019-12-07 [PMID: 31817853] (WB, Human)

Lisi L, Ciotti GMP, Chiavari M et al. Phospho-mTOR expression in human glioblastoma microglia-macrophage cells Neurochem. Int. 2019-06-10 [PMID: 31195027] (WB, IF/IHC, Human)

Rhee HJ, Shaib AH, Rehbach K et al. Pro-Inflammatory Activation of A New Immortalized Human Microglia Cell Line Brain Sci 2019-05-15 [PMID: 31096716] (WB, Human)

Zhou X, Yue GG, Chan AM et al. Eriocalyxin B, a novel autophagy inducer, exerts anti-tumor activity through the suppression of Akt/mTOR/p70S6K signaling pathway in breast cancer Biochem. Pharmacol. 2017-06-30 [PMID: 28669564] (IHC-P, Human)

Lisi L, Laudati E, Navarra P, Dello Russo C. The mTOR kinase inhibitors polarize glioma-activated microglia to express a M1 phenotype. J Neuroinflammation 2014-07-23 [PMID: 25051975] (WB, Rat)

Details:
mTOR [p Ser2448] antibody used for WB on whole-cell lysates from rat's microglial cells activated by control-conditioned medium / C-CM or CM from C6 glioma cells activated with lipopolysaccharide/LPS or IFN-gamma (Figure 1).

Lisi L, Stigliano E, Lauriola L et al. Proinflammatory-activated glioma cells induce a switch in microglial polarization and activation status, from a predominant M2b phenotype to a mixture of M1 and M2a/b polarized cells. ASN Neuro 2014-04-01 [PMID: 24689533] (WB, Rat)

Lisi L, Navarra P, Feinstein DL, Dello Russo C. The mTOR kinase inhibitor rapamycin decreases iNOS mRNA stability in astrocytes. J Neuroinflammation 2011-01-05 [PMID: 21208419] (WB, Rat)

Gupta M, Dillon SR, Ziesmer SC et al. A proliferation-inducing lig mediates follicular lymphoma B-cell proliferation cyclin D1 expression through phosphatidylinositol 3-kinase-regulated mammalian target of rapamycin activation. Blood;113(21):5206-5216. 2009-01-01 [PMID: 19321861]

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

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H00002475-Q01-10ug	Recombinant Human TOR/mTOR GST (N-Term) Protein

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