

# NADE Antibody

Catalog # ASC10258

## **Product Information**

Application	WB, E, IHC-P
Primary Accession	<u>Q00994</u>
Other Accession	<u>NP_996798</u> , <u>46094060</u>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	12959
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	NADE antibody can be used for detection of NADE by Western blot at 1

#### **Additional Information**

Gene ID Other Names	27018 NADE Antibody: Bex, BEX3, NADE, HGR74, DXS6984E, Protein BEX3, Brain-expressed X-linked protein 3, nerve growth factor receptor (TNFRSF16) associated protein 1
Target/Specificity	NGFRAP1;
Reconstitution & Storage	NADE antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	NADE Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### **Protein Information**

Name	BEX3 ( <u>HGNC:13388</u> )
Synonyms	DXS6984E, NADE, NGFRAP1
Function	May be a signaling adapter molecule involved in NGFR/p75NTR- mediated apoptosis induced by NGF. Plays a role in zinc-triggered neuronal death. In absence of reductive stress, acts as a pseudosubstrate for the CRL2(FEM1B) complex: associates with FEM1B via zinc, thereby preventing association between FEM1B and its substrates.

Cellular Location	Nucleus {ECO:0000250 UniProtKB:Q9WTZ9}. Cytoplasm, cytosol {ECO:0000250 UniProtKB:Q9WTZ9}. Note=Shuttles between the cytoplasm and the nucleus. Associates with replicating mitochondria. {ECO:0000250 UniProtKB:Q9WTZ9}
Tissue Location	Found in ovarian granulosa cells, testis, prostate and seminal vesicle tissue. High levels also detected in liver

# Background

NADE Antibody: The p75 neurotrophin receptor (p75NTR) is a member of the tumor necrosis receptor superfamily and can mediate cell death and cell survival in response to nerve growth factor (NGF). The p75NTR-associated cell death executor (NADE) mediates apoptosis by interacting with the cell death domain of p75NTR following the binding of NGF by p75NTR. Recent studies have shown that NADE also interacts with second mitochondria-derived activator of caspase (Smac). Co-expression of NADE and Smac promotes TRAIL-induced apoptosis and inhibits XIAP-mediated Smac ubiquitization. It has been suggested that it is this interaction between NADE and Smac that allows apoptosis to proceed. Finally, although initially discovered as an mRNA expressed in ovarian granulosa cells, NADE has been suggested to play a role in the neuronal death seen in epileptic brain damage.

## References

Gentry JJ, Barker PA, and Cater BD. The p75 neurotrophin receptor: multiple interactors and numerous functions. Pro. Brain Res. 2004; 146:25-39.

Mukai J, Hachiya T, Shoji-Hoshino S, et al. NADE, a p75NTR-associated cell death executor, is involved in signal transduction mediated by the common neurotrophin receptor p75NTR. J. Biol. Chem. 2000; 275:17566-70.

Rapp G, Freudenstein J, Klaudiny J, et al. Characterization of three abundant mRNAs from human ovarian granulosa cells. DNA Cell Biol. 1990; 9:479-85.

YI J-S, Lee, S-K, Sato T-A, et al. Co-induction of p75NTR and the associated death executor NADE in degenerating hippocampal neurons after kainate-induced seizures in the rat. Neurosci. Lett. 2003; 347:126-30.

#### Images



Western blot analysis of NADE in Human brain cell lysates with NADE antibody at 1  $\mu$ g/mL in the presence (A) or absence (B) of blocking peptide.

Immunohistochemistry of NADE in human brain tissue with NADE antibody at 2  $\mu$ g/mL.



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