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TYRO3 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7679d

Product Information

Application	IHC-P, WB, E
Primary Accession	Q06418
Other Accession	NP_006284
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB15157
Calculated MW	96905

Additional Information

Gene ID	7301
Other Names	Tyrosine-protein kinase receptor TYRO3, Tyrosine-protein kinase BYK, Tyrosine-protein kinase DTK, Tyrosine-protein kinase RSE, Tyrosine-protein kinase SKY, Tyrosine-protein kinase TIF, TYRO3, BYK, DTK, RSE, SKY, TIF
Target/Specificity	This TYRO3 antibody is generated from rabbits immunized with human recombinant TYRO3 protein.
Dilution	IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	TYRO3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TYRO3
Synonyms	BYK, DTK, RSE, SKY, TIF
Function	Receptor tyrosine kinase that transduces signals from the extracellular

matrix into the cytoplasm by binding to several ligands including TULP1 or GAS6. Regulates many physiological processes including cell survival, migration and differentiation. Ligand binding at the cell surface induces dimerization and autophosphorylation of TYRO3 on its intracellular domain that provides docking sites for downstream signaling molecules. Following activation by ligand, interacts with PIK3R1 and thereby enhances PI3-kinase activity. Activates the AKT survival pathway, including nuclear translocation of NF-kappa-B and up-regulation of transcription of NF-kappa-B-regulated genes. TYRO3 signaling plays a role in various processes such as neuron protection from excitotoxic injury, platelet aggregation and cytoskeleton reorganization. Also plays an important role in inhibition of Toll-like receptors (TLRs)-mediated innate immune response by activating STAT1, which selectively induces production of suppressors of cytokine signaling SOCS1 and SOCS3.

Cellular Location Cell membrane; Single-pass type I membrane protein

Tissue Location Abundant in the brain and lower levels in other tissues

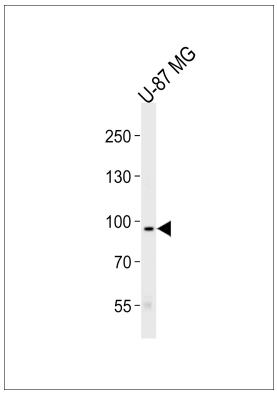
Background

Tyrosine kinase 3,mainly expressed in brain,is involved in the protection of neurons from apoptosis. Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains.

References

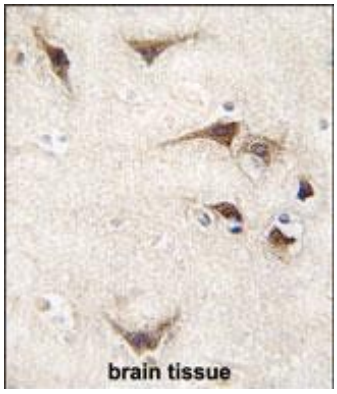
Dey, B.R., et al., Gene 209 (1-2), 175-183 (1998).

Images



Western blot analysis of lysate from U-87 MG cell line, using TYRO3 Antibody(Cat. #AP7679d). AP7679d was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug per lane.

Formalin-fixed and paraffin-embedded human brain tissue reacted with TYRO3 antibody (Cat.#AP7679d), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



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