

Datasheet for ABIN7581999 **anti-TYRO3 antibody (Extracellular)**



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Overview

Quantity:	50 µL
Target:	TYRO3
Binding Specificity:	AA 346-361, Extracellular
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This TYRO3 antibody is un-conjugated
Application:	Western Blotting (WB), Flow Cytometry (FACS), Live Cell Imaging (LCI)

Product Details

Purpose:	A Rabbit Polyclonal antibody to TYRO3 (extracellular)
Immunogen:	(C)GPYKLSWVQENGTDQDE, corresponding to amino acid residues 346 - 361 of mouse TYRO3
Sequence:	(C)GPYKLSWVQE NGTDQDE
Isotype:	IgG
Specificity:	Extracellular, N-terminus.
Predicted Reactivity:	Rat - identical, Human - 15 out of 16 amino acid residues identical
Characteristics:	Anti-TYRO3 (extracellular) Antibody (ABIN7581999) is a highly specific antibody directed against an extracellular epitope of the mouse protein. The antibody can be used in western blot and flow cytometry applications. It has been designed to recognize TYRO3 from mouse, rat and human samples.

Product Details

Purification: Affinity purified on immobilized antigen.

Target Details

Target: TYRO3

Alternative Name: TYRO3 ([TYRO3 Products](#))

Background: Tyrosine-Protein Kinase Receptor TYRO3, Tyrosine-Protein Kinase DTK, Tyrosine-Protein Kinase RSE, Tyrosine-Protein Kinase SKY, TYRO3 (also called Brt, Dtk, Etk-2, Rek, Rse, Sky, and Tif) is a member of the TAM family (TYRO3, AXL, and MERTK) of receptor tyrosine kinases (RTKs). This family is characterized by a highly conserved intracellular tyrosine kinase domain, and shared ligands Gas6 and Protein S. TYRO3 functions as homeostatic regulator of many systems and as an onco-protein. Subfamilies of RTKs are categorized based on their amino acid sequences and extracellular structural similarities. Members of a subfamily often bind common or similar ligands.¹ The TAM family functions as homeostatic regulators of cell proliferation, differentiation, survival and migration, and as such, are associated with cancer development and metastasis.² Stimulation of TAM receptors by cognate ligands Gas6 and Protein S can produce diverse cellular functions depending on the ligand-receptor combination as well as the cell type and microenvironment. For example, MERTK is best known for its mediation of cell engulfment by macrophages in the apoptosis process. In the CNS, Axl plays a role in phagocytosis of apoptotic cells by microglia. However, TYRO3 does not participate in these phagocytic processes. Gas6 (also known as Growth arrest-specific 6) and protein S are homologous proteins. They are members of the vitamin K-dependent family of proteins. Functions of Gas6 seem to be mediated exclusively by activation of the TAM receptors. In contrast, protein S takes part in other mechanisms, and is especially known for its role as a cofactor for activated protein C in the breakdown of coagulation factors. Gas6 and protein S appear to bind to TAM receptors as dimers. They serve as a "bridging molecule" that physically links a TAM receptor, to phosphatidyl-serine (PtdSer), which is displayed on the surface of the target cells. Activation of TYRO3 by its ligands is enhanced by PtdSer in a concentration-dependent manner, suggesting that local PtdSer concentrations may fine-tune TAM signaling and function. This interaction can occur on any PtdSer-expressing moiety, including apoptotic cells, tumor vasculature or viral particles.³ TYRO3 is expressed in a variety of tissues including the nervous, immune, reproductive, hematopoietic, and vascular systems. It regulates many physiological processes including cell survival, migration and differentiation. Following activation by its ligand, TYRO3 initiates homophilic dimerization, auto-phosphorylation, and downstream signaling through the PI-3K/AKT or Ras/ERK signaling pathways. TYRO3 plays a role in neuron protection from excitotoxic injury. TYRO3 knockout young adult mice suffered

Target Details

from diminished hippocampal long-term potential, and old mice suffered from neural degeneration, seizures and paralysis.4TYRO3 also takes part in platelet aggregation and cytoskeleton reorganization. It regulates inflammation by inhibition of the Toll-like receptors (TLRs)-mediated innate immune response. In addition, TYRO3 is an oncoprotein, with overexpression many cancers, including hepatocellular carcinoma, colon, breast and lung cancer.5TYRO3 has been found to function as entry factor for the hemorrhagic fever filoviruses family. In a process termed "apoptotic mimicry", the eat-me signal PtdSer has been found to be displayed on the extracellular membrane surface of several enveloped viruses, including cytomegalovirus, Ebola virus, Lassa fever virus, Zika virus, and HIV. Gas6 and Protein S again serve as "bridging molecules"-this time between a membrane that surrounds a virus capsid and the cell that the virus will infect.2

Gene ID: 22174

UniProt: [P55144](#)

Pathways: [RTK Signaling](#)

Application Details

Application Notes: Antigen preadsorption control: 1 µg peptide per 1 µg antibody
Application Dilutions Immunohistochemistry paraffin embedded sections ihc: N/A
Application Dilutions Western blot wb: 1:200-1:400

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: 0.2 mL double distilled water (DDW).

Concentration: 1 mg/mL

Buffer: PBS pH 7.4

Storage: 4 °C,-20 °C

Storage Comment: Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C.
Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).