

**TYRO3 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1108a****Specification**

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**TYRO3 Antibody - Product Information**

Application	<b>WB, IF, IHC</b>
Primary Accession	<a href="#">Q06418</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>

**Description**

Tyrosine-protein kinase (TYRO3) belongs to the Tyr protein kinase family (AXL/UFO subfamily). The UFO family of receptor tyrosine kinases is comprised of subfamily members Rse(also referred to as Tyro3 or Sky) and UFO (also called Tyro7 or Axl). Two distinct isoforms of Rse, designated Brt and Etk-2, have been described. Brt differs from Rse at its C-terminus, but more importantly lacks the N-terminal 31 amino acid signal peptide sequence present in Rse, which is replaced by a 27 amino acid Brt-specific sequence. It has been suggested that as a result of this alternative splicing event, Brt resides in the cytoplasm, unlike Rse which is expressed on the cell surface. Etk-2 also lacks an N-terminal signal peptide which is substituted with a 45 amino acid Etk-2-specific sequence. 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.

**Immunogen**

Purified recombinant fragment of TYRO3 expressed in E. Coli.

**Formulation**

Ascitic fluid containing 0.03% sodium azide.

**TYRO3 Antibody - Additional Information**

**Gene ID** 7301

**Other Names**

Tyrosine-protein kinase receptor TYRO3, 2.7.10.1, 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

**Dilution**

WB~~1/500 - 1/2000

IF~~1/200 - 1/1000

IHC~~1:200~~1000

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. 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.

**TYRO3 Antibody - 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

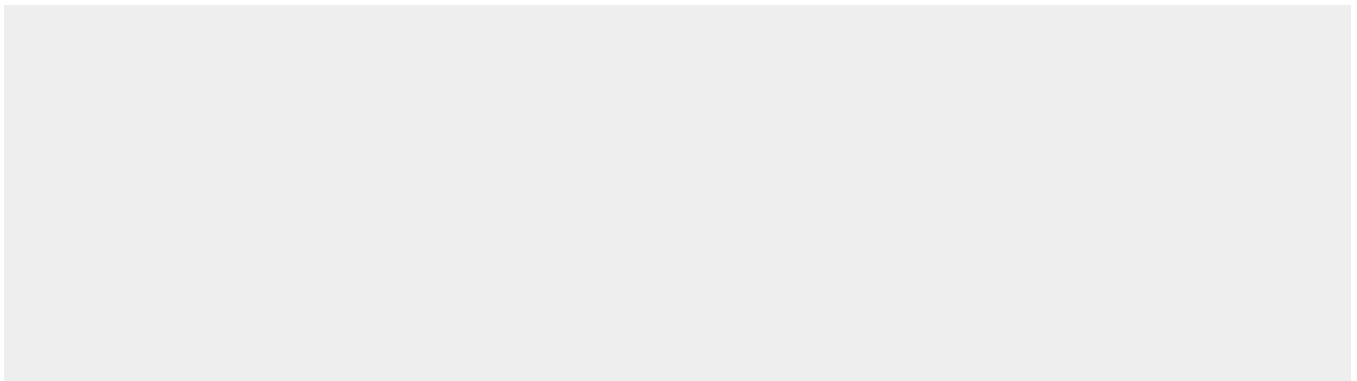
**Tissue Location**

Abundant in the brain and lower levels in other tissues

**TYRO3 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**TYRO3 Antibody - Images**

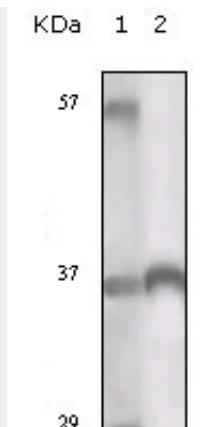


Figure 1: Western blot analysis using TYRO3 mouse mAb against truncated TYRO3 recombinant protein.

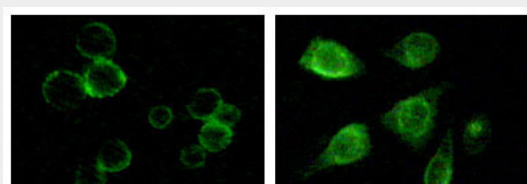


Figure 2: Immunofluorescence staining of methanol-fixed MCF-7 and HepG2 cells showing membrane and cytoplasmic localization.

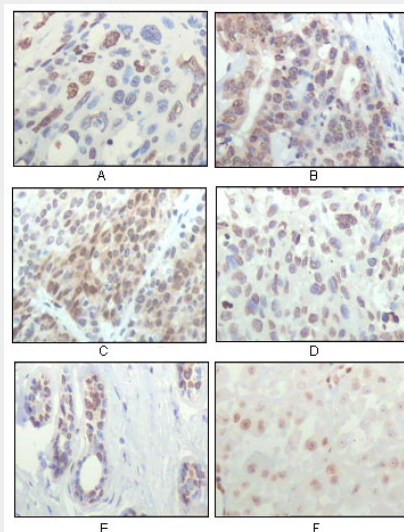


Figure 2: Immunohistochemical analysis of paraffin-embedded human esophageal squamous cell carcinoma (A), colon adenocarcinoma (B), liver carcinoma (C), skin carcinoma (D), breast ductal tumor (E) and brain tumor (F), showing nuclear localization using RSK1 mouse mAb with DAB staining.

### TYRO3 Antibody - References

1. Janssen, J.W.G., et al. 1991. *Oncogene* 6: 2113-2120.
2. Schlessinger, J., et al. 1992. *Neuron* 9: 383-391.
3. Biesecker, L.G., et al. 1995. *Oncogene* 10: 2239-2242.