

Anti-MERTK/Mer Antibody (5M877)

Product Details

Ig Type:	IgG2b
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	5M877
Purification:	Protein A purified

Applications

1. Western Blot

- Positive WB detected in: 1-4 lanes: 293T whole cell lysate transfected with MERTK at 10ug, 5ug, 2.5ug, 1.25ug
- All lanes: MERTK antibody at 1:2000
- Secondary: Goat polyclonal to mouse IgG at 1/50000 dilution
- Predicted band size: 150-250 KDa
- Observed band size: 150-250 KDa
- Exposure time: 5S

2. Western Blot

- Positive WB detected in: 1-4 lanes: Recombinant MERTK protein at 20ng, 10ng, 5ng, 2.5ng
- All lanes: MERTK antibody at 1:2000
- Secondary: Goat polyclonal to mouse IgG at 1/50000 dilution
- Predicted band size: 120 KDa
- Observed band size: 120-150 KDa
- Exposure time: 5S

3. Western Blot

- Positive WB detected in: 293 whole cell lysate, SY5Y whole cell lysate, K562 whole cell lysate
- All lanes: MERTK antibody at 1:1000
- Secondary: Goat polyclonal to mouse IgG at 1/50000 dilution
- Predicted band size: 110 kDa
- Observed band size: 130 KDa
- Exposure time: 5min

Verified Activity:

- 4. Immunofluorescence staining of 293T transfected cells with MERTK TMAH-00745 at 1:100, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and blocked in 10% normal Goat Serum. The cells were incubated with the antibody overnight at 4°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Mouse IgG (H+L).

- 5. Immunofluorescence staining of HepG2 cells with MERTK TMAH-00745 at 1:100, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and blocked in 10% normal Goat Serum. The cells were incubated with the antibody overnight at 4°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Mouse IgG (H+L).

- 6. Overlay Peak curve showing 293T transfected cells stained with TMAH-00745 (red line) at 1:100. The cells were incubated in 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1µg/1*10⁶cells) for 1h at 4°C. The secondary antibody used was FITC-conjugated Goat Anti-Mouse IgG(H+L) at 1/100 dilution for 30min at 4°C. Isotype

A DRUG SCREENING EXPERT

control antibody (green line) was mouse IgG1 (1µg/1*10⁶cells) used under the same conditions. Acquisition of >10,000 events was performed.

Application: ELISA, WB, IF, FCM

Properties

Purity: >95%

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: Recombinant Protein: MERTK Protein (21-505AA)

Antigen Species: Human

Gene ID: 10461

Uniprot ID: Q12866

Synonyms: c-Eyk;Tyro12;MER;RP38;MERTK;c-mer;MGC133349

Biology Area: Signal Transduction

Research Background

Receptor tyrosine kinase that transduces signals from the extracellular matrix into the cytoplasm by binding to several ligands including LGALS3, TUB, TULP1 or GAS6. Regulates many physiological processes including cell survival, migration, differentiation, and phagocytosis of apoptotic cells (efferocytosis). Ligand binding at the cell surface induces autophosphorylation of MERTK on its intracellular domain that provides docking sites for downstream signaling molecules. Following activation by ligand, interacts with GRB2 or PLCG2 and induces phosphorylation of MAPK1, MAPK2, FAK/PTK2 or RAC1. MERTK signaling plays a role in various processes such as macrophage clearance of apoptotic cells, platelet aggregation, cytoskeleton reorganization and engulfment. Functions in the retinal pigment epithelium (RPE) as a regulator of rod outer segments fragments phagocytosis. Plays also 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.

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