MerTK (B-1): sc-365499

**BACKGROUND**

MerTK, also called c-Mer, is a member of the Mer/Axl/Tyro3 receptor kinase family. It is a 984 residue transmembrane protein made up of one tyrosine kinase domain, two Fibronectin type-III domains and two immunoglobulin-like C2-type domains. MerTK is the mammalian ortholog of the chicken retroviral oncogene product v-Eyk. This protein plays a critical role in macrophage activation, platelet aggregation, clot stability and the efficient removal of apoptotic cells. Specifically, MerTK acts as a signaling molecule, triggering outer segment ingestion in the retinal pigment epithelium (RPE) phagocytic process. Evidence suggests that MerTK signals via interaction with phosphatidylinositol-specific phospholipase C(γ2). When the gene encoding for MerTK is mutated, the RPE phagocytosis pathway is disrupted and autosomal recessive retinitis pigmentosa (RP) may result, leading to degeneration of retinal photoreceptor cells.

**CHROMOSOMAL LOCATION**

Genetic locus: MERTK (human) mapping to 2q13; Merk (mouse) mapping to 2 F1.

**SOURCE**

MerTK (B-1) is a mouse monoclonal antibody raised against amino acids 1-222 mapping within an N-terminal extracellular domain of MerTK of human origin.

**PRODUCT**

Each vial contains 200 µg IgG₂b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MerTK (B-1) is available conjugated to agarose (sc-365499 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365499 HRP), 200 µg/ml, for WB, HICP and ELISA; to either phycoerythrin (sc-365499 PE), fluorescein (sc-365499 FITC), Alexa Fluor® 546 (sc-365499 AF546), Alexa Fluor® 594 (sc-365499 AF594) or Alexa Fluor® B47 (sc-365499 AF647), 200 µg/ml, for WB (RGB), IF, HICP and FCM; and to either Alexa Fluor® 680 (sc-365499 AF680) or Alexa Fluor® 790 (sc-365499 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

MerTK (B-1) is recommended for detection of MerTK of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MerTK siRNA (h): sc-37127, MerTK siRNA (m): sc-37128, MerTK shRNA Plasmid (h): sc-37127-SH, MerTK shRNA Plasmid (m): sc-37128-SH, MerTK shRNA (h) Lentiviral Particles: sc-37127-V and MerTK shRNA (m) Lentiviral Particles: sc-37128-V.

Molecular Weight of MerTK: 110 kDa.

Molecular Weight of glycosylated MerTK: 140-205 kDa.

Positive Controls: MerTK (m): 293 Lysate: sc-178930, U-937 cell lysate: sc-2239 or Hep G2 cell lysate: sc-2227.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

SANTA CRUZ BIOTECHNOLOGY, INC.

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