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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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MerTK (m): 293 Lysate: sc-178930

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, 2 Fibronectin type-III domains and 2 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 γ 2 (PI-PLC γ 2). 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.

REFERENCES

- Graham, D.K., et al. 1994. Cloning and mRNA expression analysis of a novel human protooncogene, c-mer. *Cell Growth Differ.* 5: 647-657.
- Gal, A., et al. 2000. Mutations in MerTK, the human orthologue of the RCS rat retinal dystrophy gene, cause retinitis pigmentosa. *Nat. Genet.* 26: 270-271.
- D'Cruz, P.M., et al. 2000. Mutation of the receptor tyrosine kinase gene Mertk in the retinal dystrophic RCS rat. *Hum. Mol. Genet.* 9: 645-651.
- Kumar, A., et al. 2001. Retinitis pigmentosa: mutations in a receptor tyrosine kinase gene, MerTK. *J. Biosci.* 26: 3-5.
- Feng, W., et al. 2002. MerTK triggers uptake of photoreceptor outer segments during phagocytosis by cultured retinal pigment epithelial cells. *J. Biol. Chem.* 277: 17016-17022.
- Todt, J.C., et al. 2004. The receptor tyrosine kinase MerTK activates phospholipase C γ 2 during recognition of apoptotic thymocytes by murine macrophages. *J. Leukoc. Biol.* 75: 705-713.
- Graham, D.K., et al. 2006. Ectopic expression of the proto-oncogene Mer in pediatric T-cell acute lymphoblastic leukemia. *Clin. Cancer Res.* 12: 2662-2669.
- Tschernutter, M., et al. 2006. Clinical characterisation of a family with retinal dystrophy caused by mutation in the MerTK gene. *Br. J. Ophthalmol.* 90: 718-723.
- Cheong, H.S., et al. 2007. MerTK polymorphisms associated with risk of haematological disorders among Korean SLE patients. *Rheumatology* 46: 209-214.

STORAGE

Store at -20°C . Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: Mertk (mouse) mapping to 2 F1.

PRODUCT

MerTK (m): 293 Lysate represents a lysate of mouse MerTK transfected 293 cells and is provided as 100 μg protein in 200 μl SDS-PAGE buffer.

APPLICATIONS

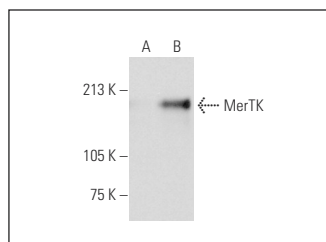
MerTK (m): 293 Lysate is suitable as a Western Blotting positive control for mouse reactive MerTK antibodies. Recommended use: 10-20 μl per lane. Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

MerTK (B-1): sc-365499 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse MerTK expression in MerTK transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



MerTK (B-1): sc-365499. Western blot analysis of MerTK expression in non-transfected: sc-110760 (A) and mouse MerTK transfected: sc-178930 (B) 293 whole cell lysates.

RESEARCH USE

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