Revision 4

#3551 Store at -20C

Mer (D21F11) XP® Rabbit mAb (Sepharose® Bead Conjugate)

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
IP	H	Endogenous	210	Rabbit IgG	#Q12866	10461

Product Usage Information

Application	Dilution
Immunoprecipitation	1:20

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol. Store at –20°C. Do not aliquot the antibodies.

Specificity / Sensitivity

Mer (D21F11) XP® Rabbit mAb (Sepharose® Bead Conjugate) detects endogenous levels of total Mer protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding His925 of human Mer protein.

Product Description

This Cell Signaling Technology antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated Sepharose® beads. Mer (D21F11) XP® Rabbit mAb (Sepharose® Bead Conjugate) is useful for the immunoprecipitation of Mer. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated Mer (D21F11) XP® Rabbit mAb #4319.

MW (kDa)	210

Background

Mer tyrosine kinase belongs to a receptor tyrosine kinase family with Axl and Tyro3. This family is characterized by a common NCAM (neural adhesion molecule)-related extracellular domain and a common ligand, GAS6 (growth arrest-specific protein 6). Mer protein has an apparent molecular weight of 170-210 kDa due to different glycosylation patterns generated in different cell types. Mer can be activated by dimerization and autophosphorylation through ligand binding or homophilic cell-cell interaction mediated by its NCAM-like motif (1). The downstream signaling components of activated Mer include PI3 kinase, PLCγ, and MAP kinase (2). Family members are prone to transcriptional regulation and carry out diverse functions including the regulation of cell adhesion, migration, phagocytosis, and survival (3). Mer regulates macrophage activation, promotes apoptotic cell engulfment, and supports platelet aggregation and clot stability *in vivo* (4). Investigators have found that overexpression of Mer may play a cooperative role in leukemogenesis and may be an effective target for biologically based leukemia/lymphoma therapy (5).

Background References

1. Ling, L. et al. (1996) *J Biol Chem* 271, 18355-62.
2. Ling, L. and Kung, H.J. (1995) *Mol Cell Biol* 15, 6582-92.
3. Hafizi, S. and Dahlbäck, B. (2006) *Cytokine Growth Factor Rev* 17, 295-304.
4. Sather, S. et al. (2007) *Blood* 109, 1026-33.
5. Keating, A.K. et al. (2006) *Oncogene* 25, 6092-100.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Applications Key

IP: Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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