

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CLEC4F/CLECSF13 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) CLECSF4F, rhCLEC4D, rhCLEC4E, recombinant mouse (rm) OCIL, and rmOCIL-rp2 is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 370901
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse CLEC4F/CLECSF13 Ala65-Gly548 Accession # P70194
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

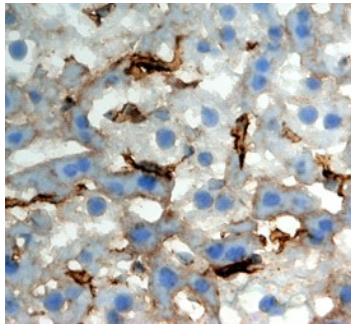
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Mouse CLEC4F/CLECSF13 (Catalog # 2784-CL)
Immunohistochemistry	8-25 µg/mL	See Below

DATA

Immunohistochemistry



CLEC4F/CLECSF13 in Mouse Liver.
CLEC4F/CLECSF13 was detected in perfusion fixed frozen sections of mouse liver using Rat Anti-Mouse CLEC4F/CLECSF13 Monoclonal Antibody (Catalog # MAB2784) at 5 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Rat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS017) and counterstained with hematoxylin (blue). Specific staining was localized to Kupffer cells. View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CLEC4F (C-type lectin domain; family 4, member F; also known as the Kupffer cell receptor and fucose receptor) is an 80 kDa, type II transmembrane glycoprotein member of the C-type lectin superfamily (1-3). Mature mouse CLEC4F consists of a 42 amino acid (aa) cytoplasmic domain, a 27 aa transmembrane segment, and a 479 aa extracellular domain (ECD) that contains an extended stalk region plus one carbohydrate recognition domain (4, 5). Within the ECD, mouse CLEC4F shares 48% and 79% aa sequence identity with human and rat CLEC4F, respectively. The stalk region of CLEC4F is a coiled coil domain that mediates homotrimer formation (6, 7). CLEC4F is expressed on Kupffer cells in the liver, but not on macrophages in other tissues (8). CLEC4F preferentially binds galactose and N-acetylgalactosamine in a calcium-dependent manner (6, 9, 10). Its activity at neutral, but not at acidic pH, suggests a capacity to internalize and release ligands into the endosomal system (11).

References:

1. Zelensky, A.N. and J.E. Gready (2005) *FEBS J.* **272**:6179.
2. Bilzer, M. *et al.* (2006) *Liver Int.* **26**:1175.
3. Kuiper, J. *et al.* (1994) *Biochem. J.* **299**:285.
4. Accession # P70194.
5. Hoyle, G.W. and R.L. Hill (1988) *J. Biol. Chem.* **263**:7487.
6. Fadden, A.J. *et al.* (2003) *Glycobiology* **13**:529.
7. Beavil, A.J. *et al.* (1992) *Proc. Natl. Acad. Sci.* **89**:753.
8. Haltiwanger, R.S. *et al.* (1986) *J. Biol. Chem.* **261**:7433.
9. Coombs, P.J. *et al.* (2006) *Glycobiology* **16**:1C.
10. Biessen, E.A.L. *et al.* (1994) *Biochem. J.* **299**:291.
11. Lehrman, M.A. *et al.* (1986) *J. Biol. Chem.* **261**:7426.