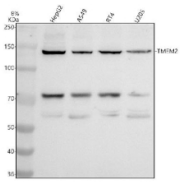
CEMIP2 Antibody / Cell migration-inducing and hyaluronan-binding protein 2 (FY12150)

Catalog No.	Formulation	Size
FY12150	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q9UHN6
Applications	Western Blot : 0.25-0.5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This CEMIP2 antibody is available for research use only.



Western blot analysis of CEMIP2 using anti-CEMIP2 antibody. Electrophoresis was performed on a 8% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human HepG2 whole cell lysates, Lane 2: human whole cell lysates, Lane 3: human RT4 whole cell lysates, Lane 4: human U2OS whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CEMIP2 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. The expected band size for CEMIP2 is at 147 kDa along with smaller ~70 and ~55 kDa products, likely derived from N-terminal proteolytic cleavage.

Description

CEMIP2 antibody detects Cell migration-inducing and hyaluronan-binding protein 2, encoded by the CEMIP2 gene on

chromosome 15q25.3. CEMIP2 antibody is widely used to study this hyaluronidase-like protein, also called TMEM2, which plays essential roles in hyaluronan metabolism, extracellular matrix organization, and cell motility. CEMIP2 belongs to the transmembrane protein family with key functions in tissue remodeling, development, and cancer biology. Its expression is detected in many tissues, including cartilage, brain, liver, and kidney, with particularly strong activity in extracellular matrix-rich environments.

Structurally, CEMIP2 is a type I transmembrane glycoprotein of approximately 160 kDa. It contains a large extracellular domain with hyaluronan-binding motifs and catalytic residues predicted to mediate hyaluronan degradation. The cytoplasmic tail harbors sorting signals that regulate membrane localization and endocytosis. CEMIP2 functions as a cell-surface hyaluronidase that cleaves high molecular weight hyaluronan into smaller fragments, thereby influencing cell adhesion, migration, and signaling. Its activity distinguishes it from soluble hyaluronidases by providing localized hyaluronan remodeling at the plasma membrane.

Functionally, CEMIP2 controls multiple biological processes. In development, CEMIP2 regulates craniofacial morphogenesis and cardiovascular formation by modulating extracellular matrix composition. In adults, it contributes to tissue repair and fibrosis by altering hyaluronan turnover. Knockout studies in mice demonstrate defects in cardiac and skeletal development, highlighting its importance in organogenesis. Researchers use CEMIP2 antibody to study extracellular matrix biology, wound healing, and developmental pathways influenced by hyaluronan dynamics.

Clinically, CEMIP2 is strongly linked to cancer progression. Overexpression has been documented in gliomas, breast cancer, and pancreatic cancer, where it enhances invasion and metastasis by facilitating cell migration through hyaluronan-rich matrices. Elevated CEMIP2 expression correlates with poor prognosis and aggressive tumor phenotypes. Mutations in CEMIP2 are also associated with congenital craniofacial defects such as cleft palate. Dysregulation of hyaluronan metabolism by CEMIP2 contributes to fibrosis, cardiovascular disease, and inflammatory disorders, making it an important biomarker and therapeutic target.

Experimentally, CEMIP2 antibody is applied in western blotting to detect the ~160 kDa protein, in immunohistochemistry to evaluate expression in tumor tissues, and in immunofluorescence microscopy to study localization at the plasma membrane. Immunoprecipitation with CEMIP2 antibody helps identify interacting partners involved in extracellular matrix regulation. NSJ Bioreagents provides CEMIP2 antibody to enable reliable detection of this extracellular matrix-modifying protein in cancer, development, and fibrosis research.

Application Notes

Optimal dilution of the CEMIP2 antibody should be determined by the researcher.

Immunogen

E.coli-derived human CEMIP2 recombinant protein (Position: E55-R1225) was used as the immunogen for the CEMIP2 antibody.

Storage

After reconstitution, the CEMIP2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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