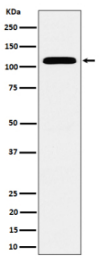
SEC24D Antibody [clone 30S42] (FY12078)

Catalog No.	Formulation	Size
FY12078	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30S42
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	O94855
Applications	Western Blot : 1:500-1:2000
Limitations	This SEC24D antibody is available for research use only.



Western blot analysis of SEC24D expression in human HeLa cell lysate using SEC24D antibody. Predicted molecular weight ~113 kDa.

Description

SEC24D antibody detects protein transport protein Sec24D, a component of the coat protein complex II (COPII) vesicle trafficking system. SEC24D functions as a cargo-binding adaptor, selecting proteins for export from the endoplasmic reticulum to the Golgi apparatus. As one of four paralogs in the SEC24 family, SEC24D provides substrate specificity, ensuring correct sorting of a wide range of secretory and membrane proteins. Proper activity of SEC24D is fundamental to protein trafficking and overall cellular homeostasis.

Research using SEC24D antibody has demonstrated the protein's involvement in human disease. Mutations in SEC24D cause autosomal recessive skeletal disorders such as osteogenesis imperfecta and Cole-Carpenter syndrome, where impaired secretion of collagen and other matrix proteins disrupts bone development. SEC24D dysfunction can also affect immune signaling and neural development, reflecting its role in multiple cargo export pathways.

In cancer biology, SEC24D has been implicated in tumor progression due to its regulation of protein secretion and cell signaling. Tumor cells often exploit secretory pathways to remodel their microenvironment, and altered expression of SEC24D may enhance invasive behavior. In addition, SEC24D participates in the trafficking of receptors and adhesion molecules, making it relevant for studies on metastasis and cellular communication.

Antibodies against SEC24D are validated for western blot, immunohistochemistry, and immunofluorescence. These reagents enable detection of SEC24D across tissues and allow analysis of subcellular localization within ER exit sites. Clone-based antibodies ensure specificity, distinguishing SEC24D from related SEC24 family members. Such tools are valuable for researchers studying protein trafficking, secretion, and disease mechanisms tied to the secretory pathway.

NSJ Bioreagents offers this SEC24D antibody to support studies in cell biology, developmental disorders, and cancer research.

Application Notes

Optimal dilution of the SEC24D antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human SEC24D was used as the immunogen for the SEC24D antibody.

Storage

Store the SEC24D antibody at -20oC.