

DESCRIPTION

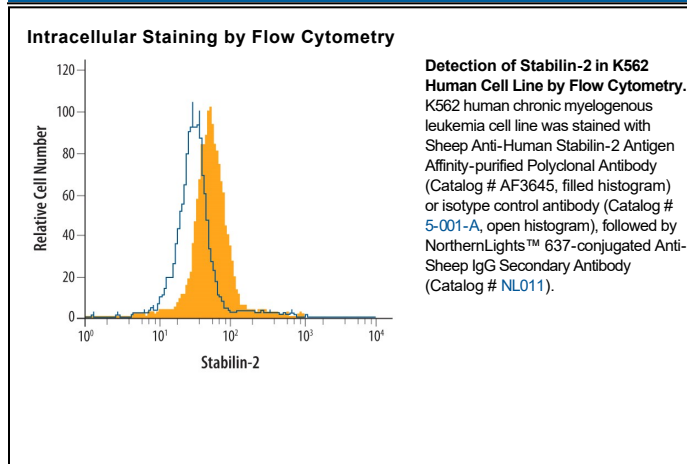
Species Reactivity	Human
Specificity	Detects human Stabilin-2 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human Stabilin-1 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Stabilin-2 Gly2198-Val2295 Accession # Q8WWQ8
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 either lyophilized or 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	0.1 µg/mL	Recombinant Human Stabilin-2 (Catalog # 3645-S2)
Intracellular Staining by Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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

Stabilin-2, also known as HARE (hyaluronan receptor for endocytosis) and FEEL-2 (fasciclin, EGF-like, laminin type EGF-like, and link domain containing scavenger receptor 2), is a type I transmembrane multi-domain protein that is the closest homolog of stabilin-1 (1, 2). It is a scavenger receptor that is expressed on sinusoidal endothelial cells of liver, spleen, and lymph node (1, 2). Its 2439 amino acid (aa) extracellular domain contains seven fasciclin domains, multiple EGF-like and laminin type EGF-like domains, and a link domain related to molecules of the TSG-6 superfamily (3). The 72 aa cytoplasmic tail of Stabilin-2 contains a motif that allows the AP2 classical cargo adaptor to direct cargo into clathrin-coated pits (4). As a recycling receptor, Stabilin-2 cycles from the membrane to clathrin-coated pits each 10-15 minutes, with about two thirds of the protein found within the endocytic system at any one time (4). The link domain binds and mediates the systemic clearance of hyaluronan (HA) (2-6). Within the link domain (aa 2198-2295), human Stabilin-2 shares 86% and 89% aa identity with mouse and rat Stabilin-2, respectively. Total human HA is about 15 grams, of which about 5 grams are cleared each day (5). Stabilin-2 also mediates the endocytosis of chondroitin and chondroitin sulfate, advanced glycosylation end-product (AGE), collagen N-terminal propeptides and acetylated LDL (4-7). Human Stabilin-2 mRNA encodes a 2251 aa, 315 kDa protein that produces an isoform of 190 kDa through proteolytic cleavage (2, 6). The 190 kDa form lacks some N-terminal fasciclin and EGF-like domains, but shows similar activities when compared with the 315 kDa form (2, 6).

References:

1. Politz, O. *et al.* (2002) *Biochem. J.* **362**:155.
2. Zhou, B. *et al.* (2003) *Glycobiology* **13**:339.
3. Blundell, C.D. *et al.* (2005) *J. Biol. Chem.* **280**:18189.
4. Hansen, B. *et al.* (2005) *Exp. Cell Res.* **303**:160.
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6. Harris, E.N. *et al.* (2007) *J. Biol. Chem.* **282**:2785.
7. Tamura, Y. *et al.* (2003) *J. Biol. Chem.* **278**:12613.