



PRODUCT SPECIFICATION

Recombinant anti-human fascin nanobody 5.

Catalogue number: sdAb-FSC-Nb5

Background

Fascin is a trefoil protein that assembles F-actin filaments into tight bundles. Fascin is a prominent constituent of filopodia and lamellipodia, but also cancer cell invadopodia and immune cell podosomes. Mature invadopodia possess the ability to degrade the extracellular matrix, promoting cancer cell evasion from the tumor. Immune cell podosomes assist cells in migrating through a dense matrix to an area of infection. Fascin expression is altered in a number of cancer cell types and the protein is involved in regulating cell migration and invasion. Moreover, fascin is involved in the process of tumor self seeding and maintaining stemness of the breast cancer stem cell pool. It is considered as a therapeutic target.

Applications: PD, IP, ELISA. This product is for R&D use only, not for drug, diagnostic, therapeutic, household, or other uses.

Source and properties

Fascin nanobody 5 was raised by immunizing an alpaca with full length human recombinant fascin-1. It binds to fascin-1 with an approximate **affinity of 35 nanomolar** (determined by ITC). The nanobody has no apparent effect on the phosphorylation status (Ser-39) of fascin. **Fascin nanobody 5 interacts with trefoil domains 1, 3 and 4. Fascin nanobody 5 counteracts the bundling activity** of the protein.

Availability: Nanobody 5 comes with a COOH-terminal HA or Myc epitope tag. Available in 100 µg, 500 µg, 1000 µg quantities. For bulk amounts, please inquire.

Expression host: VHH single domain antibody purified from *E. coli*.

Cross reactivity: Reactivity of this nanobody with fascin from other species, or with fascin-2, has not been tested.

Storage buffer: 20 mM Tris-HCl pH 8.0, 150 mM NaCl, 1mM DTT, 60 % glycerol. Store at -20°C. The sample will not freeze. Maintain sample in cold environment during transport to increase longevity.

Stability: Store at -20°C upon arrival. For long term storage, aliquot and store at -80°C. Avoid repeated freeze/thaw cycles.

Product citations:

1. Van Audenhove I, Debeuf N, Boucherie C, Gettemans J. 2015. *Biochim Biophys Acta* 1853: 940-52
2. Van Audenhove I, Boucherie C, Pieters L, Zwaenepoel O, Vanloo B, et al. 2014. *FASEB J* 28: 1805-18
3. Gross C, Wiesmann V, Millen S, Kalmer M, Wittenberg T, et al. 2016. *PLoS Pathog* 12: e1005916