Nanobody toolbox for your research

PRODUCT SPECIFICATION

Recombinant anti-human fascin nanobody 3E11.

Catalogue number: sdAb-FSC-Nb3E11

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, in vitro biochemical experiments. This product is for R&D use only, not for drug, diagnostic, therapeutic, household, or other uses.

Source and properties

Fascin nanobody 3E11 was raised by immunizing a llama with human fascin 1-493 (1). It binds to fascin with an approximate **affinity of 25 nanomolar** (determined by ELISA). **Fascin nanobody 3E11 inhibits the actin bundling activity of the protein**. Remarkably, like Fascin Nb5 (2-3), 3E11 inhibits filopodia formation although both nanobodies bind to different regions in fascin.

Availability: Nanobody 3E11 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 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. Burgess S, Paul N, Richards M, Ault J, Askenatzis L, Claydon S, Corbyn R, Machesky L Bayliss R 2024. *Open Biol.* 14: 230376.
2. Van Audenhove I, Boucherie C, Pieters L, Zwaenepoel O, Vanloo B, et al. 2014. *FASEB J* 28: 1805-18
3. Van Audenhove I, Debeuf N, Boucherie C, Gettemans J. 2015. *Biochim Biophys Acta* 1853: 940-52