Nanobody toolbox for your research

PRODUCT SPECIFICATION

Recombinant anti-human Cortactin SH3 nanobody 2.

Catalogue number: sdAb-CTT SH3-Nb2

Background

Cortactin is a multidomain cytoskeletal protein and a crucial component in cell migration (via Arp2/3) and cancer cell invasion and metastasis. Cortactin is an early constituent of podosomes (immune cells) and invadopodia (cancer cells), structures/organelles used by cells to degrade the extracellular matrix and migrate to a site of infection (immune cells) or escape from a primary tumor (cancer cells). The protein is overexpressed in various types of cancer.

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

Source and properties

Cortactin SH3 Nb2 was raised by immunizing a dromedary with full length human His_6- and SUMO-tagged cortactin. The nanobody binds to the C-terminal SH3 domain with an **approximate affinity of 75 nM (determined by ITC).** It does not cross-react with HS-1, a close relative of cortactin. The nanobody was shown to act as an intrabody and perturb invadosome stability. It may prevent interaction with a number of proteins known to bind to the SH3 domain, including WIP.

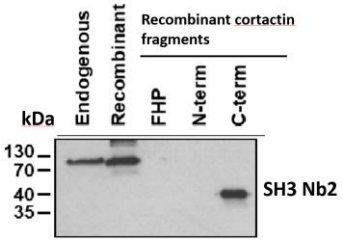
Availability: Cortactin SH3 nanobody 2 comes with a COOH-terminal HA or Myc epitope tag. Available in 100 µg, 500 µg, 1000 µg quantities. For bulk amounts, please inquire.

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

Cross reactivity: Reactivity of this nanobody with cortactin 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.



Detection of endogenous (SCC-61 head and neck squamous cell carcinoma cells) and recombinant cortactin using V5-tagged SH3 nanobody. Bertier L, et al. *Biomed Pharmacother.* 2018;102:230-241.

Product citations:

1. Bertier L, Boucherie C, Zwaenepoel O, Vanloo B, Van Troys M, et al. 2017. *FASEB J*
2. Van Audenhove I, Denert M, Boucherie C, Pieters L, Cornelissen M, Gettemans J. 2016. *J Biol Chem* 291: 9148-60
3. Van Audenhove I, Debeuf N, Boucherie C, Gettemans J. 2015. *Biochim Biophys Acta* 1853: 940-52
4. Van Audenhove I, Boucherie C, Pieters L, Zwaenepoel O, Vanloo B, et al. 2014. *FASEB J* 28: 1805-18