



PRODUCT SPECIFICATION

Recombinant anti-human L-plastin nanobody 9.

Catalogue number: sdAb-Plastin-Nb9

Background

L-plastin is a member of a small family of actin bundling proteins. Unlike fascin, L-plastin generates actin bundles that are more loosely connected. L-plastin expression is normally restricted to immune cells but is ectopically expressed in tumor cells and contributes to tumor cell invasion.

Nanobody 9 inhibits filopodium formation and motility of PC-3 prostate cancer cells, when expressed as an intrabody. It also perturbs stability of immune cell podosomes and cancer cell invadosomes.

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

Source and properties

L-plastin nanobody 9 was raised by immunizing an alpaca with full length human recombinant L-plastin. It binds to L-plastin with an **approximate affinity of 80 nM (determined by ITC) and calcium is required for binding**. Hence this nanobody binds to inactivated L-plastin because calcium reduced the bundling activity. Plastin nanobody 9 interacts with the EF-hands, in the N-terminal region of L-plastin.

Availability: Nanobody 9 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 L-plastin 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. Van Audenhove I, Denert M, Boucherie C, et al. 2016. *J Biol Chem.* 291, 9148-60.
2. De Clercq S, Boucherie C, Vandekerckhove J, Gettemans J, Guillabert A. 2013. *PLoS One* 8: e78108
3. De Clercq S, Zwaenepoel O, Martens E, Vandekerckhove J, Guillabert A, Gettemans J. 2013. *Cell Mol Life Sci.*70, 909-22.