Nanobody toolbox for your research

PRODUCT SPECIFICATION

Recombinant anti-human DPP6 nanobody 1.

Catalogue number: sdAb-DPP6-Nb1.

Background:

Dipeptidyl aminopeptidase-like protein 6 is single pass type II membrane spanning protein. It is a member of the family of serine proteases but it has no detectable protease activity. It is known to interact with voltage gated channels. Several variants were identified and the so-called DPP6-001 variant is mainly expressed in the pancreas, the others are present in the central nervous system. The nanobody presented here is directed against the full-length protein. DPP6 was identified as a biomarker of the endocrine pancreas and localizes to alpha and beta cells of the pancreas.

Applications: Interacts with the antigen under native conditions, applicable in flow cytometry, ELISA, imaging through labeling with radionuclides. This product is for R&D use only, not for drug, diagnostic, therapeutic, household, or other uses.

Source and properties: Raised in dromedary with the extracellular domain of human DPP6 that is constant in the different isoforms as antigen (aa 118-865). The equilibrium dissociation constant was determined at 1.2 nM $\mathbf{K}_D$, measured with a Biacore instrument.

Availability: DPP6 Nb1 comes with a COOH-terminal HA 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*.

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.

Sources:

* Balhuizen et al. A nanobody-based tracer targeting DPP6 for non-invasive imaging of human pancreatic endocrine cells. Sci. rep. DOI:10.1038/s41598-017-15417-2 1.
*Wikipedia: https://en.wikipedia.org/wiki/DPP6

Citations:

*Berland et al. Nanobodies for Medical Imaging: About Ready for Prime Time? Biomolecules. DOI: 10.3390/biom11050637
*Balhuizen et al. A nanobody-based tracer targeting DPP6 for non-invasive imaging of human pancreatic endocrine cells. Sci. rep. DOI:10.1038/s41598-017-15417-2 1