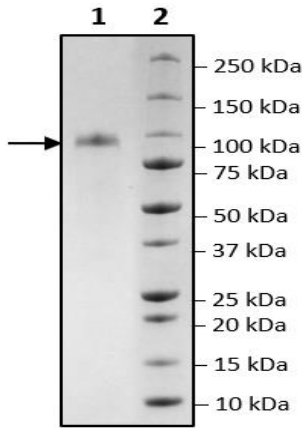


Product Information

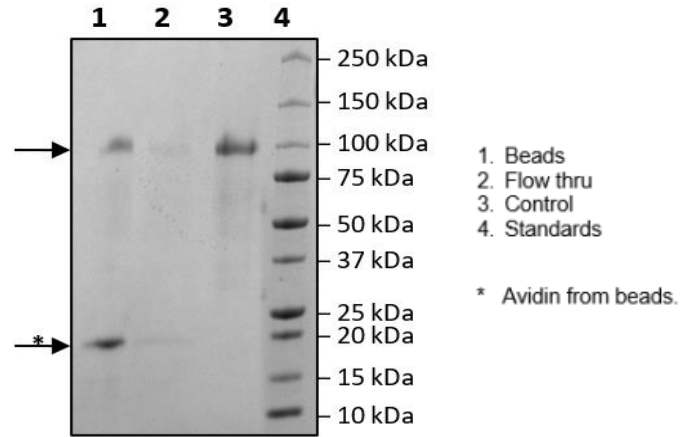
Description:	Recombinant human DLL4 (delta-like canonical Notch ligand 4), encompassing amino acids 27-529. This construct contains the Fc region of IgG1 on the C-terminus, followed by an Avi-Tag™. This protein was affinity purified.
Background:	DLL4, or delta-like canonical Notch ligand 4, is part of the Notch signaling pathway and it is involved in normal tissue development and homeostasis. It is an agonist ligand and can bind to the four Notch receptors. It is expressed in the vascular system and plays a crucial role in angiogenesis. Loss of function of DLL4 results in VEGF upregulation, and the formation of immature vessels without a lumen. It has been shown that DLL4 inhibition can actually result in tumor regression through its role on VEGF upregulation. DLL4 is found in several tumor types, and it is found in tumor stem cells. Inhibition of DLL4 can thus contribute to cancer therapy via its several mechanisms of action.
Species:	Human
Construct:	DLL4 (27-529-Fc(IgG1)-Avi)-(Biotin)
Concentration:	0.22 mg/ml
Expression System:	HEK293
Purity:	≥90%
Format:	Aqueous buffer solution.
Formulated In:	8 mM phosphate, pH 7.4, 110 mM NaCl, 2.2 mM KCl, and 20% glycerol
MW:	84 kDa + glycans
Glycosylation:	This protein runs at a higher MW by SDS-PAGE due to glycosylation.
Genbank Accession:	NM_019074.4
Label:	This protein is enzymatically biotinylated using Avi-Tag™ technology. Biotinylation was confirmed to be ≥90%.
Stability:	At least 6 months at -80°C.
Storage:	-80°C
Instructions for Use:	Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.
Assay Conditions:	This protein was validated by measuring DLL4 binding to Notch1 in ELISA. The Notch1 protein (BPS Bioscience #101897) was coated onto a 96-well plate overnight at 4°C (50 µl/well at a concentration of 4 µg/ml in PBS). The plate was washed 3 times with Immuno Buffer 1 (BPS Bioscience #79311) and blocked using 100 µl of Blocking Buffer 2 (BPS Bioscience #79728) for 1 hour at room temperature. After removing the blocking buffer, 50 µl/well of purified DLL4 Fc Biotin (BPS Bioscience #101904), serially diluted in Blocking Buffer 2, was added for 1 hour at room temperature. After washing the plate was incubated with Streptavidin-HRP (BPS Bioscience #79742). This was followed by washing and incubation with Colorimetric HRP substrate. The reaction was stopped, and absorbance was read at λ=450 nm. The Blank value was subtracted from all values. The protein was also validated by functional activation of Notch 1/CSL-Luciferase Reporter HEK293 cells (BPS Bioscience #82201). DLL4 protein (BPS Bioscience #101904) was coated onto a 96-well plate overnight at 4°C (50 µl/well at 0-10 µg/ml in PBS). The plate was washed 3 times with buffer and Notch1/CSL Luciferase Reporter HEK293 cells were seeded at ~35,000 cells per well. Cells were incubated for 26 hours n at 37°C in a 5% CO ₂ incubator. Luciferase activity was measured using One-Step™ Luciferase Assay System (BPS Bioscience #60690).
Applications:	Useful for binding studies of DLL4 by ELISA and in cellular assays.

Quality Control Data

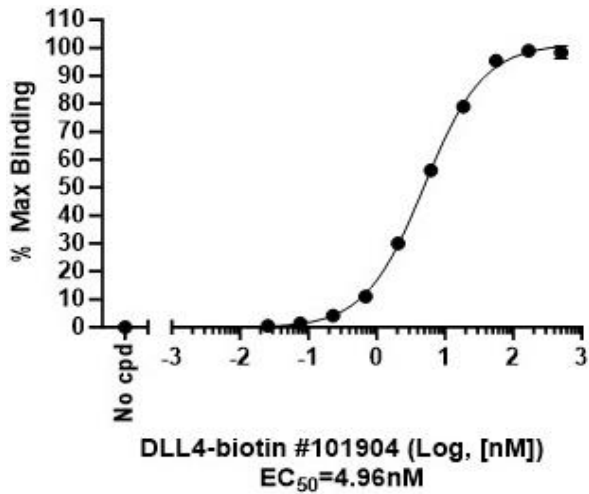
4-20% SDS-PAGE Coomassie Staining



Biotin-Avidin Pulldown



Notch1:DDL4-Biotin Binding Assay



Functional Validation of DLL4 on Notch1/CSL-Luc HEK293 Cells

