Recombinant Human DLL4 Protein (Fc Tag)



RPES8346

Product Information

Product SKU: RPES8346 Expression Host: Mammalian Size: 20μg

Tag: C-Fc Reactivity: Human Accession: Q9NR61

Additional Information

Calculated MW: 79.7 kDa Observed MW: 90 kDa

Sequence: Ser27-Pro524

Protein Information

Background:

Delta-like protein 4 (DLL4, Delta4), a type I membrane-bound Notch ligand, is one of five known Notch ligands in mammals and interacts predominantly with Notch 1, which has a key role in vascular development. Recent studies yield substantial insights into the role of DLL4 in angiogenesis. DLL4 is induced by vascular endothelial growth factor (VEGF) and acts downstream of VEGF as a 'brake' on VEGF-induced vessel growth, forming an autoregulatory negative feedback loop inactivating VEGF. DLL4 is downstream of VEGF signaling and its activation triggers a negative feedback that restrains the effects of VEGF. Attenuation of DLL4/Notch signaling results in chaotic vascular network with excessive branching and sprouting. DLL4 is widely distributed in tissues other than vessels including many malignancies. Furthermore, the molecule is internalized on binding its receptor and often transported to the nucleus. In pathological conditions, such as cancer, DLL4 is up-regulated strongly in the tumour vasculature. Blockade of DLL4-mediated Notch signaling strikingly increases nonproductive angiogenesis, but significantly inhibits tumor growth in preclinical mouse models. In preclinical studies, blocking of DLL4/Notch signaling is associated with a paradoxical increase in tumor vessel density, yet causes marked growth inhibition due to functionally defective vasculature. Thus , DLL4 blockade holds promise as an additional strategy for angiogenesis-based cancer therapy.

Synonyms: DLL, AOS, UNQ, PRO, Delta-like protein, Drosophila Delta homolog, Delta, hdelta,

DLL4, AOS6, hdelta2, Delta4, Delta-like protein 4, Drosophila Delta homolog 4,

UNQ1895, PRO4341, Delta 4, delta 4 precursor, Delta ligand 4, delta ligand 4

precursor, Delta like 4, Delta like 4 homolog, Delta like 4 protein, Delta like canonical

Notch ligand 4, Delta like protein 4, Delta-like 4 (Drosophila), DLL 4, Homeobox

protein DLL-4, MGC126344, Notch ligand delta 2, Notch ligand DLL4, Notch ligand

DLL4 precursor, XDLL-4

Endotoxin: < 1.0 EU/mg of the protein as determined by the LAL method

Formulation: Lyophilized from a 0.2 μm filtered solution in PBS with 5% Trehalose and 5% Mannitol.

Purity: > 90% as determined by reducing SDS-PAGE.

Bio-Activity: Not validated for activity

Storage: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to

-80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of

reconstituted samples are stable at < -20°C for 3 months.