



Recombinant Protein Technical Manual

Recombinant Mouse CHL2/CHRDL2 Protein (His Tag)

RPES5228

Product Data:

Product SKU: RPES5228

Size: 10µg

Species: Mouse

Expression host: Human Cells

Uniprot: Q8VEA6

Protein Information:

Molecular Mass: 46.3 kDa

AP Molecular Mass: 60-75 kDa

Tag: C-6His

Bio-activity:

Purity: > 95 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: 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.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Chordin-like protein 2; BNF; CHRDL2; chordin-like 2; chordin-like protein 2

Immunogen Information:

Sequence: Gln24-Leu426

Background:

Mouse Chordin-Like 2, also known as CHL2, is a novel chordin family member with structural homology to CHL1 which is implicated in tumor angiogenesis. The mouse CHL2 gene encodes a 426 amino acids (aa) protein with a 25 aa signal peptide. The mature chain of CHL2 protein contains two potential N-linked glycosylation sites, one putative NLS and three 63 aa cysteine-rich von Willebrand type C repeats (CRs). CHL2 gene is weakly expressed in the liver and kidney, partly expressed in the connective tissues of reproductive organs such as ligaments of the ovary and oviduct in females, and of testis, epididymis and certain male accessory sex glands in males. Recombinant mCHL2 protein interacted directly with five BMPs and one GDF thereby inhibiting, in vitro, several BMP/GDF-dependent processes including, osteogenic differentiation of C2C12 mesenchymal progenitor cells by several BMPs, ATDC5 embryonal carcinoma cells by GDF5 and BMP4-dependent lymphohematopoietic (CD34+CD31hi and CD34+CD31lo) progenitor cell development from ES cells. CHL2 may inhibit BMPs activity by blocking their interaction with their receptors, and has a negative regulator effect on the cartilage formation/regeneration from immature mesenchymal cells, by preventing or reducing the rate of matrix accumulation. Also, it may play a role during myoblast and osteoblast differentiation, and maturation.