

CHL2 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	CHRD2;chordin-like 2;chordin-like protein 2;BNF-1
Protein Construction:	Gln24-Leu426
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q8VEA6
Molecular Weight:	60-75 KDa (reducing condition)
AA Sequence:	Gln24-Leu426

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein 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+CD31^{hi} and CD34+CD31^{lo}) progenitor cell development from ES cells. CHL2 may inhibits 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.

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