

DESCRIPTION

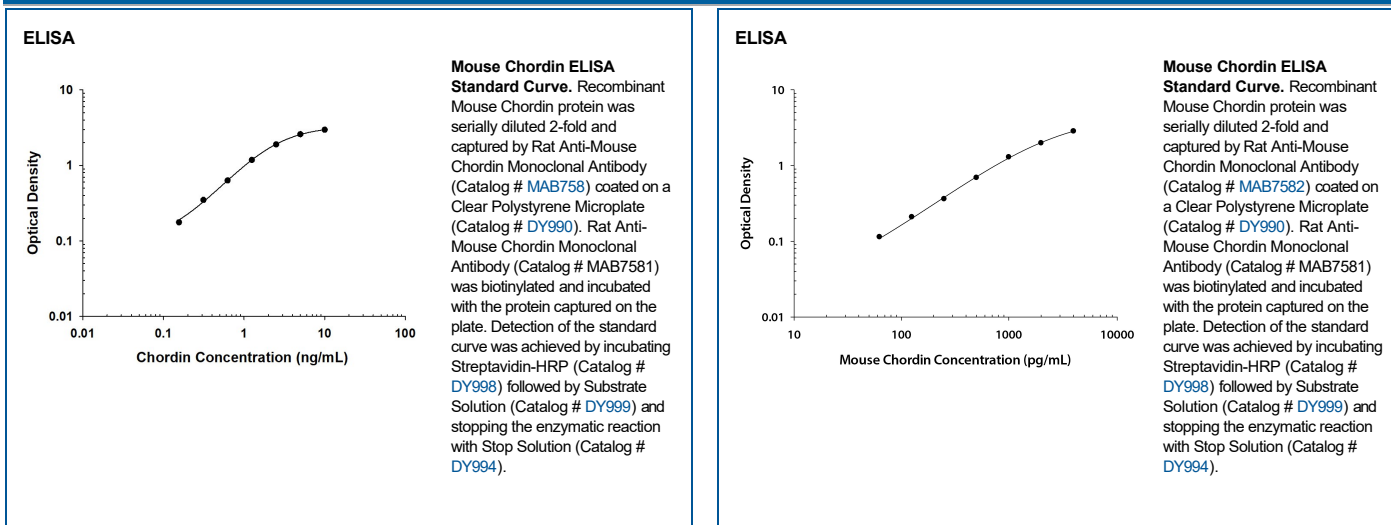
Species Reactivity	Mouse
Specificity	Detects mouse Chordin in direct ELISAs.
Source	Monoclonal Rat IgG _{2A} Clone # 119705
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Chordin Thr27-Ser948 Accession # Q9Z0E2
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the [Technical Information](#) section on our website.

ELISA	This antibody functions as an ELISA detection antibody when paired with Rat Anti-Mouse Chordin Monoclonal Antibody (Catalog # MAB758 or MAB7582). <i>This product is intended for assay development on various assay platforms requiring antibody pairs. We recommend the Mouse Chordin DuoSet ELISA Kit (Catalog # DY758) for convenient development of a sandwich ELISA.</i>
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DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Chordin is a secreted glycoprotein that regulates dorsoventral patterning during gastrulation. Chordin functions as a bone morphogenetic protein (BMP) antagonist that blocks their ventralizing activity by binding to the BMPs and inhibiting their interaction with their receptors. Mouse Chordin cDNA encodes a 948 amino acid (aa) precursor protein with a putative 26 aa signal peptide. Chordin contains four internal cysteine-rich repeats (CRs) that are conserved in the spacing of their ten cysteine residues. The CRs of chordin, especially CR1 and CR3, have been shown to be the functional domains for BMP binding. These conserved CRs are present in an expanding family of secreted molecules that antagonize BMP signaling. Xolloid (an extracellular zinc metalloproteinase) can cleave chordin at two specific sites resulting in chordin fragments with lower BMP-affinity. Cleavage of the chordin/BMP complex can reverse the BMP antagonist activity of chordin. Mouse Chordin is expressed at high levels in 7 day postcoitum mouse embryos. Chordin expression is also detected in multiple fetal and adult tissues, most notably liver and cerebellum, suggesting additional roles for Chordin in organogenesis and homeostasis.

References:

1. De Robertis, E.M. and Y. Sasai (1996) *Nature* **380**:37.
2. Larrain, J. *et al.* (2000) *Development* **127**:821.
3. Coffinier, C. *et al.* (2001) *Mech. Dev.* **100**:119.