

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse Chordin in direct ELISAs.                                                                                                                                                                                                                                     |
| <b>Source</b>             | Monoclonal Rat IgG <sub>2A</sub> Clone # 119705                                                                                                                                                                                                                             |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant mouse Chordin<br>Thr27-Ser948<br>Accession # Q9Z0E2                                                                                                                                                                         |
| <b>Conjugate</b>          | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## 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** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## 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. Xoloid (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.

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