

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Brorin in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant mouse Brorin is observed.                                                                                                                    |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human Brorin/VWC2<br>Ser28-Met325<br>Accession # Q2TAL6                                                                                                                                                                     |
| <b>Conjugate</b>          | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 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.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | 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

Brorin (brain-specific chordin-like protein), also called VWC2, is an ~46 kDa glycoprotein that is a member of the Chordin family of secreted BMP regulators (1-3). The human Brorin cDNA encodes 325 amino acids (aa) including a 27 aa signal sequence and a 298 aa secreted mature protein with two VWFC domains. These domains contain a pattern of 10 cysteine residues that is conserved in other family members, with the remaining aa sequence sharing little identity (1). Human Brorin shares 90%, 91%, and 95% aa sequence identity with mouse, rat, and equine Brorin, respectively. It also shares aa identity with VWC2L (Brorin-like) of 37% overall and 62% within the VWFC domains (4). Brorin is predominantly expressed in embryonic and adult neural tissues in the mouse (1). Expression of Brorin mRNA is concentrated in neurons within the diencephalon and medulla oblongata but is not detected in the developing cerebral cortex (1). Brorin binds and antagonizes BMPs, interacting via the VWFC domains (1-3). It promotes neurogenesis in mouse neural precursors (1). Knockdown of Brorin in zebrafish embryos results in morphological abnormalities in the brain and eye (1, 4).

## PRODUCT SPECIFIC NOTICES

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