

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Chicken                                                                                                                                                                                                                                                                     |
| <b>Specificity</b>        | Detects chicken Caronte in direct ELISAs and Western blots.                                                                                                                                                                                                                 |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant chicken Caronte<br>Asp16-Asn272<br>Accession # NP_990154                                                                                                                                                                    |
| <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>Blockade of Receptor-ligand Interaction</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

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|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <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

Chicken Caronte, the ortholog of mammalian Cerberus, is a member of the Cerberus/DAN family of secreted glycoproteins. There are at least 5 Dan Domain (DAND) family members including DAN (DAND1), Gremlin/Drm (DAND2), PRDC (Protein Related to Dan and Cerberus; DAND3), Cerberus (DAND4), and Coco (DAND5). Caronte is expressed in the left paraxial mesoderm and is the molecule responsible for transducing left-sided positional information from the node to the periphery of the lateral plate mesoderm (LPM) during chicken embryonic development. Caronte functions as a BMP antagonist, inducing Nodal and downstream genes in the LPM by interfering with the repressive activity of bilaterally-produced BMPs. In addition, antagonism of BMPs by Caronte induces the expression of the Lefty gene in the midline. Caronte binds both BMP-4 and BMP-7 in immunoprecipitation experiments. Recombinant chicken Caronte preparations from R&D Systems have been shown to bind BMP-4 in a functional ELISA and induce heart reversals in *Xenopus* embryos.

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