

#### DESCRIPTION

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| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Carbonic Anhydrase XIV/CA14 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 50% cross-reactivity with recombinant mouse CA14, 10% cross-reactivity with recombinant human (rh) CA5A,&nb                                 |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2B</sub> Clone # 312908                                                                                                                                                                                                                           |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human Carbonic Anhydrase XIV/CA14<br>Gly19-Met290<br>Accession # Q9ULX7                                                                                                                                                     |
| <b>Conjugate</b>          | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 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>Immunoprecipitation</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

Carbonic Anhydrase 14 (CA14) has a C-terminal transmembrane domain (aa 291 - 311) and a short cytoplasmic tail (aa 312 - 337). As a functioning enzyme of the CA family, it catalyzes the reversible hydration of CO<sub>2</sub>. CA14 is highly expressed in all parts of the central nervous system with lower expression in adult liver, heart, small intestine, colon, kidney, urinary bladder and skeletal muscle. The rhCA14 corresponds to the 272 aa ectodomain that has a predicted molecular mass of approximately 32 kDa and an apparent molecular mass of approximately 43 kDa in SDS-PAGE. The amino acid sequence of the human ectodomain shares 98%, 86%, 84%, and 83% identity with that of chimpanzee, bovine/dog, rat and mouse, respectively.

#### PRODUCT SPECIFIC NOTICES

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