

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human/Mouse                                                                                                                                                                                                                                                                 |
| <b>Specificity</b>        | Detects human Carbonic Anhydrase VIII/CA8 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human CA1, 2, 3, 4, 9, 10, 12, 13, or 14 is observed.                                                                |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>1</sub> Clone # 308320                                                                                                                                                                                                                            |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human Carbonic Anhydrase VIII/CA8<br>Ala2-Gln290<br>Accession # P35219                                                                                                                                                                  |
| <b>Conjugate</b>          | Alexa Fluor 350<br>Excitation Wavelength: 346 nm<br>Emission Wavelength: 442 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.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

#### BACKGROUND

Carbonic Anhydrase VIII (CA8), also called CA-related protein (CARP), is a cytosolic protein without CA activity (i.e., the reversible hydration of CO<sub>2</sub>) due to point mutations in the zinc-binding site (1, 2). Nevertheless, it has esterase activity. CA8 is expressed exclusively in Purkinje cells of the cerebellum, where it binds inositol 1,4,5-triphosphate receptor type 1 (3). CA8 overexpression in human colorectal cancer and non-small cell lung cancer indicates that it plays a role in the process of invasion in these types of malignancy (4, 5). The 289 amino acid rhCA8 has a predicted molecular mass of approximately 33 kDa. It shares 98% amino acid identity with mouse, rat and bovine CA8 and 78% with Xenopus.

#### PRODUCT SPECIFIC NOTICES

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