

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Carbonic Anhydrase VA/VB (CA5A/5B) in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human CA1, 4, or CA6-14 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 487908
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Carbonic Anhydrase VA/VB (CA5A/5B) Ala40-Ser305 Accession # P35218
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	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 is a group of metalloproteases that catalyze the reversible reaction of CO₂ + H₂O → HCO₃⁻ + H⁺, which is fundamental to many processes such as respiration, renal tubular acidification and bone resorption. CA5A and CA5B are homologous proteins that are encoded by different genes locating in different chromosomes. However, they both are mitochondrial proteins and have low Carbonic Anhydrase activity. The amino acid sequence of human CA5A is 98%, 80% and 76% identical to that of chimpanzee, dog and mouse.

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