

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Carbonic Anhydrase XII/CA12 in direct ELISAs and Western blots. In Western blots, 100% cross-reactivity with recombinant human (rh) CA12, 10% cross-reactivity with rhCA2, and no cross-reactivity with rhCA1, 3, 5A, 5B, 6, 7, 8,
Source	Monoclonal Rat IgG _{2A} Clone # 336103
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Carbonic Anhydrase XII/CA12 Ala25-Ser301 Accession # Q8CI85
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.

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 (CA) catalyzes the reversible reaction of $\text{CO}_2 + \text{H}_2\text{O} = \text{HCO}_3^- + \text{H}^+$, which is fundamental to many processes such as respiration, renal tubular acidification and bone resorption (1). Mouse CA12 is a type I membrane enzyme with both CA activity and esterase activity (2, 3). The amino acid sequence of mouse CA12 shares 97%, 82%, and 68% identity with that of rat, human/chimpanzee/canine, and chicken.

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