bio-techne RD SYSTEMS

Human/Mouse Carbonic Anhydrase XIV/CA14 Antibody

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF2195

DESCRIPTION		
Species Reactivity	Human/Mouse	
Specificity	Detects human Carbonic Anhydrase XIV/CA14 in direct ELISAs and Western blots.	
Source	Polyclonal Goat IgG	
Purification	Antigen Affinity-purified	
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Carbonic Anhydrase XIV/CA14 Gly19-Met290 Accession # Q9ULX7	
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.	

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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Carbonic Anhydrase XIV (Catalog # 2195-CA), see our
		evolution in Mestern blot detection antibadies

DATA



Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.	
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C	
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.	
	 12 months from date of receipt, -20 to -70 °C as supplied. 	
	1 month, 2 to 8 °C under sterile conditions after reconstitution.	
	 6 months, -20 to -70 °C under sterile conditions after reconstitution. 	

BACKGROUND

Carbonic Anhydrase (CA) catalyzes the reversible reaction of $CO_2 + H_2O = HCO_3^- + H^+$, which is fundamental to many processes such as respiration, renal tubular acidification and bone resorption (1). Topics in a CA meeting (6th International Conference on the CAs, June 20-25, 2003, Slovakia) ranged from the use of CAs as markers for tumor and hypoxia in the clinic, as anutritional supplement in milk, and as a tool for CO_2 removal and mosquito control in industry. CA14 is a type I membrane enzyme 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 (2).

References:

- 1. Hewett-Emmett, D. and R.E. Tashian (1996) Mol. Phylogenet. Evol. 5:50.
- 2. Fujikawa-Adachi, K. et al. (1999) Genomics 61:74.

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