Human Carbonic Anhydrase VI Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2939

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Carbonic Anhydrase VI in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant human (rh) Carbonic Anhydrase (CA) 5A and rhCA5B is observed and less than 1% cross-reactivity with rhCA1, rhCA2, rhCA3, rhCA4, rhCA7, rhCA8, rhCA9, rhCA10, rhCA12, rhCA13, and rhCA14 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Carbonic Anhydrase VI Gln18-Asn308 Accession # EAW71606
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

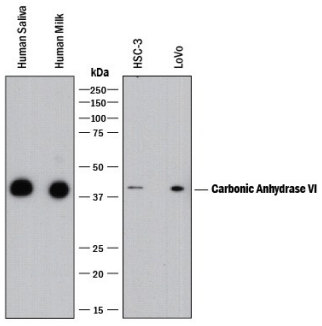
APPLICATIONS

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	0.5 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Carbonic Anhydrase VI (Catalog # 2939-CA), see our available Western blot detection antibodies
Simple Western	1 µg/mL	See Below

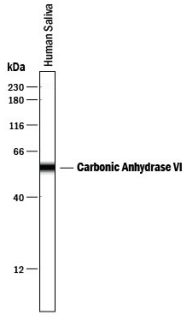
DATA

Western Blot



Detection of Human Carbonic Anhydrase VI by Western Blot. Western blot shows human saliva, human milk, and lysates of HSC-3 human oral squamous cell carcinoma cell line and LoVo human colorectal adenocarcinoma cell line. PVDF membrane was probed with 0.5 µg/mL of Goat Anti-Human Carbonic Anhydrase VI Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2939) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Carbonic Anhydrase VI at approximately 42 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Human Carbonic Anhydrase VI by Simple Western™. Simple Western lane view shows lysates of human saliva, loaded at 0.2 mg/mL. A specific band was detected for Carbonic Anhydrase VI at approximately 56 kDa (as indicated) using 1 µg/mL of Goat Anti-Human Carbonic Anhydrase VI Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2939) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

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 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 a nutritional supplement in milk, and as a tool for CO_2 removal and mosquito control in industry.
Carbonic Anhydrase VI, also known as gustin and salivary Carbonic Anhydrase, is a zinc-metalloprotein that constitutes about 3% of human parotid saliva protein (2, 3). It was decreased in patients with loss of taste and pathological changes in taste buds (4). It is also an elementary component of milk. It plays an important role in normal growth and development of the infant alimentary tract (5).

References:

1. Hewett-Emmett, D. and R.E. Tashian (1996) Mol. Phylogenet. Evol. **5**:50.
2. Murakami, H. and Sly, W. S. (1987) J. Biol. Chem. **262**:1382.
3. Thatcher, B. J. *et al.* (1998) Biochem. Biophys. Res. Commun. **250**:635.
4. Hankin, R. I. *et al.* (1999) Am. J. Med. Sci. **318**:380.
5. Karhumaa, P. *et al.* (2001) Proc. Natl. Acad. Sci. USA. **98**:11604.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956