

## DESCRIPTION

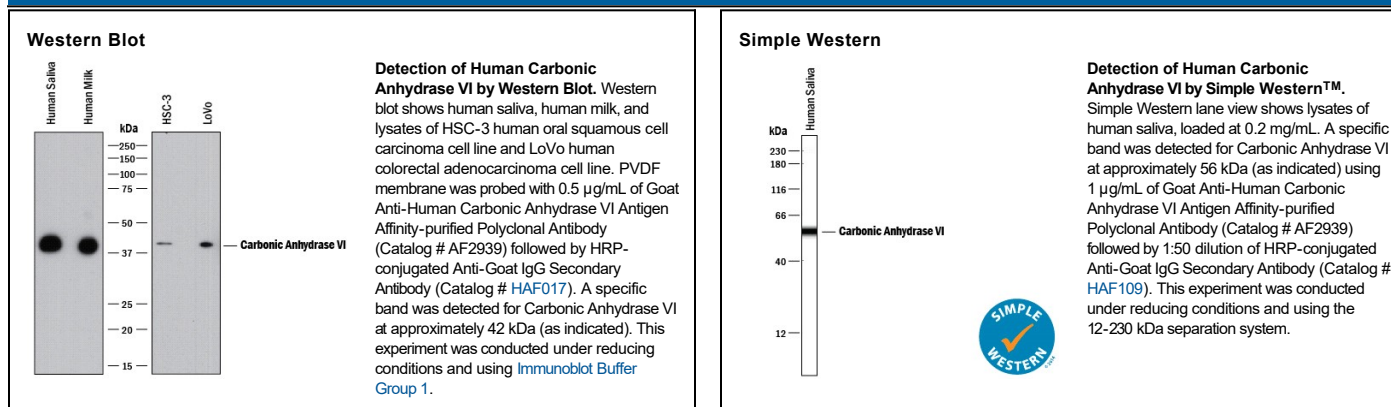
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Carbonic Anhydrase VI in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant human (rh) Carbonic Anhydrase (CA) 5A and rhCA5B is observed and less than 1% cross-reactivity with rhCA1, rhCA2,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

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.5 µg/mL	See Below
<b>Immunoprecipitation</b>	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Carbonic Anhydrase VI (Catalog # 2939-CA), see our available <a href="#">Western blot detection antibodies</a>
<b>Simple Western</b>	1 µg/mL	See Below

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Carbonic Anhydrase 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). Topics in a CA meeting (6<sup>th</sup> 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  $\text{CO}_2$  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.