Human/Mouse Carbonic Anhydrase VIII/CA8 Antibody

Monoclonal Mouse IgG_1 Clone # 308320

Catalog Number: MAB2187

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human Carbonic Anhydrase VIII/CA8 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human CA1, 2, 3, 4, 9, 10, 12, 13, or 14 is observed.
Source	Monoclonal Mouse IgG_1 Clone # 308320
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human Carbonic Anhydrase VIII/CA8 Ala2-Gln290 Accession # P35219
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.

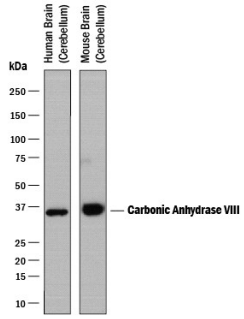
APPLICATIONS

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	1 µg/mL	See Below

DATA

Western Blot



Detection of Human and Mouse Carbonic Anhydrase VIII/CA8 by Western Blot. Western blot shows lysates of human brain (cerebellum) tissue and mouse brain (cerebellum) tissue. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human/Mouse Carbonic Anhydrase VIII/CA8 Monoclonal Antibody (Catalog # MAB2187) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Carbonic Anhydrase VIII/CA8 at approximately 36 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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 VIII (CA8), also called CA-related protein (CARP), is a cytosolic protein without CA activity (i.e., the reversible hydration of CO_2) due to point mutations in the zinc-binding site (1, 2). Nevertheless, it has esterase activity. CA8 is expressed exclusively in Purkinje cells of the cerebellum, where it binds inositol 1,4,5-triphosphate receptor type 1 (3). CA8 overexpression in human colorectal cancer and non-small cell lung cancer indicates that it plays a role in the process of invasion in these types of malignancy (4, 5). The 289 amino acid rhCA8 has a predicted molecular mass of approximately 33 kDa. It shares 98% amino acid identity with mouse, rat and bovine CA8 and 78% with Xenopus.

References:

1. Hewett-Emmett, D. and R.E. Tashian (1996) Mol. Phylogenet. Evol. **5**:50.
2. Sjoblom, J. *et al.* (1996) FEBS Lett. **398**: 322.
3. Hirota, J. *et al.* (2003) Biochem. J. **372**: 435.
4. Miyaji, E. *et al.* (2003) J. Pathol. **201**: 37.
5. Lu, S.H. *et al.* (2004) Lung Cancer **44**: 273.

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