

Carbonic Anhydrase 14 Recombinant Rabbit Monoclonal Antibody Product Datasheet

Catalog# BX50346

Clone# BP6314

Predicted Molecular Wt: 38kDa
Species Cross-reactivity: Human
Applications: IHC-P

Purity: ProA affinity purified IgG
Form: Liquid
Swissprot ID: Q9ULX7

Background:

Carbonic Anhydrase 14 (CA14) is a membrane-associated zinc metalloenzyme belonging to the carbonic anhydrase family. It catalyzes the reversible hydration of carbon dioxide to bicarbonate and protons. In the central nervous system, it contributes critically to neuronal signaling, cerebrospinal fluid production, and possibly neuroprotection.

Carbonic Anhydrase 14 (CA14) is predominantly expressed in brain and liver. In tumor tissue, it is mainly expressed in malignant melanoma and hepatocellular carcinoma.

Carbonic Anhydrase 14 (CA14) demonstrates emerging diagnostic and prognostic relevance in specific malignancies, notably hepatocellular carcinoma (HCC) and malignant melanoma. In HCC, CA14 is frequently overexpressed in tumor tissues compared to adjacent non-tumorous liver, correlating with advanced tumor stage, vascular invasion and poorer overall survival, suggesting utility as a prognostic biomarker. In malignant melanoma, CA14 expression is linked to tumor progression, potentially contributing to extracellular acidosis, invasion and immune evasion within the tumor microenvironment.

Subcellular location:

Membrane

Recommended Method:

Heat induced epitope retrieval with Tris-EDTA buffer (pH 9.0), primary antibody incubate at RT (18°C-25°C) for 30 minutes.

Immunogen:

Synthetic peptide. This information is proprietary to BioLynx.

Storage Buffer:

PBS 59%, Sodium azide 0.01%, Glycerol 40%, BSA 0.05%.

Storage Conditions:

-25°C to -18°C

Shipment Instructions:

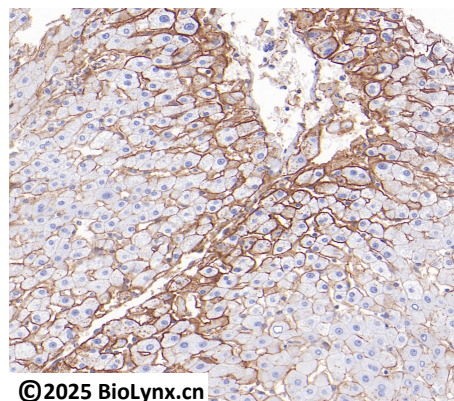
Shipped on blue ice. Upon delivery store at -25°C to -18°C. Avoid freeze / thaw cycles.

Recommended Dilution:

IHC-P: 1:100-1:200

Background References:

1. Tripp, B.C. et al. (2001) J Biol Chem 276, 48615-8.
2. Smith, K.S. et al. (1999) Proc Natl Acad Sci USA 96, 15184-9.



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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver labelling Carbonic Anhydrase 14 with BP6314.

Product QC'd by:



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