Recombinant Human Annexin A3

Catalog Number: 9410-AN

DESCRIPTION

Source	*E. coli*-derived Ala2-Asp323, with a C-terminal 6-His tag Accession # P12429
N-terminal Sequence Analysis	Ala2
Structure / Form	
Predicted Molecular Mass	37 kDa

SPECIFICATIONS

SDS-PAGE	36 kDa, reducing conditions
Activity	Bioassay data are not available.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 250 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
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. ● 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

Bioactivity not tested

The Innovator Series. R&D Systems proteins are almost always sold with a bioassay to indicate activity. However, we recognize that sometimes proteins might be novel, and their bioactivity may not be well understood. In addition, some researchers may wish to use polypeptides to make antibodies. To facilitate the advancement of new science, we now offer our Innovator Series of proteins.

BACKGROUND

Annexin A3 (ANXA3), also known as Annexin III and Lipocortin III (LPC3), is a 37 kDa member of the Annexin family. Annexins are calcium-dependent phospholipid-binding proteins that are preferentially located on the cytosolic face of the plasma membrane. The Annexins consist of a unique N-terminal domain followed by a homologous C-terminal core domain containing the phospholipid-binding sites. The C-terminal domain is comprised of four 60-70 aa annexin repeats which form a tightly packed disc known as the annexin domain. Members of the Annexin family play a role in cytoskeletal interactions, phospholipase inhibition, regulation of cellular growth, and intracellular signal transduction pathways (1). Annexin A3 is up-regulated in microglia following stroke and in parenchymal hepatocytes in regenerating liver (2, 3). It can be up- or down-regulated in various carcinomas (4). Alternate splicing generates an additional isoform with a 30 amino acid (aa) deletion near the N-terminus (5). Human Annexin A3 shares 89% and 85% aa sequence identity with mouse and rat Annexin A3, respectively.

References:

1. Gerke, V. *et al.* (2005) Nat. Rev. Mol. Cell Biol. **6**:449.
2. Kessler, C., *et al.* (2007). Rom. J. Morphol. Embryol. **49**:27.
3. Harashima, M. *et al.* (2008). J. Biochem. **143**:537.
4. Wu, N., *et al.* (2013). Clin. Transl. Oncol. **15**:106.
5. Bianchi, C. *et al.* (2010). Am. J. Pathol. **176**:1660.

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