

## ANXA2 Protein, Mouse, Recombinant (His)

### General Information

Synonyms:	LIP2PAP-IV;Annexin II;LPC2DP36;LPC2D;CAL1H;Annexin A2;ANX2L4;ANX2;PAP-IV;p36;Lipocortin II;Chromobindin-8;ANXA2
Protein Construction:	Ser2-Asp339
Species:	Mouse
Expression Host:	E. coli
Accession:	P07356
Molecular Weight:	39.6 kDa (predicted) same as Tris-Bis PAGE result.

### QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95% as determined by Tris-Bis PAGE
Endotoxin:	< 1.0 EU/ $\mu$ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 $\mu$ m filter, containing 20 mM MES, 150 mM NaCl, 200 mM L-arginine, 5 mM DTT (pH 5.5). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in 20mM MES, 150mM NaCl, 200mM L-arginine, 5mM DTT (pH 5.5). The product concentration should not be less than 100  $\mu$ g/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

ANXA2, highly expressed in invasive breast cancer cells, is closely related with poor prognosis, and acts as a molecular switch to EGFR activation. ANXA2 expression is inversely correlated with cell sensitivity to gefitinib. Knockdown of ANXA2 expression in MDA-MB-231 cells increased the gefitinib induced cell death. When ANXA2 was overexpressed in MCF7 cells, the gefitinib induced cell death was decreased. Furthermore, the

phosphorylation of ANXA2 at Tyr23 is negatively correlated with the sensitivity of TNBC to gefitinib.

Reference

Zhang Y, et al. ANXA2 could act as a moderator of EGFR-directed therapy resistance in triple negative breast cancer. *Biosci Biotechnol Biochem.* 2018 Oct;82(10):1733-174doi: 10.1080/09168451.2018.1484275. Epub 2018 Jun 18. PMID: 29912633.

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