

# Recombinant Human Cyclic AMP-dependent transcription factor ATF-2(ATF2)

Catalog No: #AP70061

Package Size: #AP70061-1 20ug #AP70061-2 100ug #AP70061-3 1mg

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## Description

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| Product Name          | Recombinant Human Cyclic AMP-dependent transcription factor ATF-2(ATF2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Host Species          | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Purification          | Greater than 90% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Immunogen Description | Expression Region:1-505aaSequence Info:Full Length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Other Names           | Activating transcription factor 2;Cyclic AMP-responsive element-binding protein 2 ;CREB-2 ;cAMP response element-binding protein CRE-BP1                                                                                                                                                                                                                                                                                                                                                                                                       |
| Accession No.         | P15336                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Calculated MW         | 70.5 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Tag Info              | N-terminal 6xHis-SUMO-tagged                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Target Sequence       | MKFKLHVNSARQYKDLWNMSDDKPFLCTAPGCGQRFTNEDHLAVHKHKHEMTLKFGPARNDSVIVADQTPT<br>PTRFLKNCEEVGLFNELASPFENEFFKASEDDIKKMPLDLSPLATPIIRSKIEEPSVETTHQDSPLPHPESTTS<br>DEKEVPLAQTAQPTSAIVRPASLQVPNVLLTSSDSSVIIQQAVPSPTSSTVITQAPSSNRPIVPVPGPFLLLHLP<br>NGQTMPVAIPASITSSNVHVPAAVPLVRPVTMVPSVPGIPGPSSQPQVQSEAKMRLKAALTQQHPPVTNGDTV<br>KGHGSLVRTQSEESRPQSLQQPATSTTETPASPAHTTPQTQSTSGRRRRRAANEDPDEKRRKFLEARNRAAA<br>SRCRQKRKVWVQSLEKKAEDLSSLNGQLQSEVTLRNEVAQLKQLLAHKDCPVTAMQKKSGYHTADKDDS<br>SEDISVPSSPHTIAIQHSSVSTSNVSVSTSKAEAVATSVLTQMADQSTEPALSQIVMAPSSQSQPSGS |
| Formulation           | Tris-based buffer50% glycerol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Storage               | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.<br><br>Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.                                                                                                                                                |

## Background

Transcriptional activator which regulates the transcription of various genes, including those involved in anti-apoptosis, cell growth, and DNA damage response. Dependent on its binding partner, binds to CRE (cAMP response element) consensus sequences (5'-TGACGTCA-3') or to AP-1 (activator protein 1) consensus sequences (5'-TGACTCA-3'). In the nucleus, contributes to global transcription and the DNA damage response, in addition to specific transcriptional activities that are related to cell development, proliferation and death. In the cytoplasm, interacts with and perturbs HK1- and VDAC1-containing complexes at the mitochondrial outer membrane, thereby impairing mitochondrial membrane potential, inducing mitochondrial leakage and promoting cell death. The phosphorylated form (mediated by ATM) plays a role in the DNA damage response and is involved in the ionizing radiation (IR)-induced S phase checkpoint control and in the recruitment of the MRN complex into the IR-induced foci (IRIF). Exhibits histone acetyltransferase (HAT) activity which specifically acetylates histones H2B and H4 in vitro. In concert with CUL3 and RBX1, promotes the degradation of KAT5 thereby attenuating its ability to acetylate and activate ATM. Can elicit oncogenic or tumor suppressor activities depending on the tissue or cell type.

## References

Homo sapiens activating transcription factor 2 (ATF2) mRNA splice variant.von Hippel A.C.Generation and annotation of the DNA sequences of human chromosomes 2 and 4.Hillier L.W., Graves T.A., Fulton R.S., Fulton L.A., Pepin K.H., Minx P., Wagner-McPherson C., Layman D., Wylie K., Sekhon M., Becker M.C., Fewell G.A., Delehaunty K.D., Miner T.L., Nash W.E., Kremitzki C., Oddy L., Du H. , Sun H., Bradshaw-Cordum H., Ali J., Carter J., Cordes M., Harris A., Isak A., van Brunt A., Nguyen C., Du F., Courtney L., Kalicki J., Ozersky P., Abbott S., Armstrong J., Belter E.A., Caruso L., Cedroni M., Cotton M., Davidson T., Desai A., Elliott G., Erb T., Fronick C., Gaige T., Haakenson W., Haglund K., Holmes A., Harkins R., Kim K., Kruchowski S.S., Strong C.M., Grewal N., Goyea E., Hou S., Levy A., Martinka S., Mead K., McLellan M.D., Meyer R., Randall-Maher J., Tomlinson C., Dauphin-Kohlberg S., Kozlowicz-Reilly A., Shah N., Swearngen-Shahid S., Snider J., Strong J.T., Thompson J., Yoakum M., Leonard S., Pearman C., Trani L., Radionenko M., Waligorski J.E., Wang C., Rock S.M., Tin-Wollam A.-M., Maupin R., Latreille P., Wendl M.C., Yang S.-P., Pohl C., Wallis J.W., Spieth J., Bieri T.A., Berkowicz N., Nelson J.O., Osborne J., Ding L., Meyer R., Sabo A., Shotland Y., Sinha P., Wohldmann P.E., Cook L.L., Hickenbotham M.T., Eldred J., Williams D., Jones T.A., She X., Ciccarelli F.D., Izaurralde E., Taylor J., Schmutz J., Myers R.M., Cox D.R., Huang X., McPherson J.D., Mardis E.R., Clifton S.W., Warren W.C., Chinwalla A.T., Eddy S.R., Marra M.A., Ovcharenko I., Furey T.S., Miller W., Eichler E.E., Bork P., Suyama M., Torrents D., Waterston R.H., Wilson R.K.Nature 434:724-731(2005)Research Topic:Transcription

Note: This product is for in vitro research use only and is not intended for use in humans or animals.