

## Product datasheet for **TP308093**

### ERG (NM\_182918) Human Recombinant Protein

#### Product data:

|                                       |   |
|---------------------------------------|---|
| Product Type:                         | Recombinant Proteins  |
| Description:                          | Recombinant protein of human v-ets erythroblastosis virus E26 oncogene homolog (avian) (ERG), transcript variant 1, 20 µg   |
| Species:                              | Human   |
| Expression Host:                      | HEK293T   |
| Expression cDNA Clone or AA Sequence: | >RC208093 representing NM_182918<br><b>Red</b> =Cloning site <b>Green</b> =Tags(s)  |
|                                       | <p>MASTIKEALSVVSEDQSLFECAYGTPHLAKTEMTASSSSDYGQTSKMSPRVPQQDWLSQPPARVTIKMEC<br/>NPSQVNGSRNSPDECSVAKGGKMGVSPDTVGMNYGSYMEEKHMPPPNMTTNERVIVPADPTLWSTD<br/>HVR</p> <p>QWLEWAVKEYGLPDVNILLFQNIIDGKELCKMTKDDFQRLTPSYNADILLSHLHYLRETPLPHLTSDDVDK<br/>ALQNSPRLMHARNTGGAAFIFPNTSVYPEATQRITRPDLPEPPRRSAWTGHGHPTPQSKAAQSPSTV<br/>PKTEDQRPQLDPYQILGPTSSRLANPGSGQIQLWQFLLELLSDSSNSSCITWEGTNGEFKMTDPDEVARR<br/>WGERKSKPNMNYDKLSRALRYYYDKNIMTKVHGKRYAYKFDFHGIAQALQPHPPPESSLYKYPSDLPYMG<br/>S</p> <p>YHAHPQKMNFVAPHPPALPVTSSSFFAAPNPYWNSPTGGIYPNTRLPTSHMPSHLGTTY</p> <p><b>SGPTRTRRLEQKLISEEDLAANDILDYKDDDDKV</b></p> |
| Tag:                                  | C-Myc/DDK   |
| Predicted MW:                         | 53.7 kDa  |
| Concentration:                        | >0.1 µg/µL as determined by microplate BCA method   |
| Purity:                               | > 80% as determined by SDS-PAGE and Coomassie blue staining   |
| Buffer:                               | 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol  |

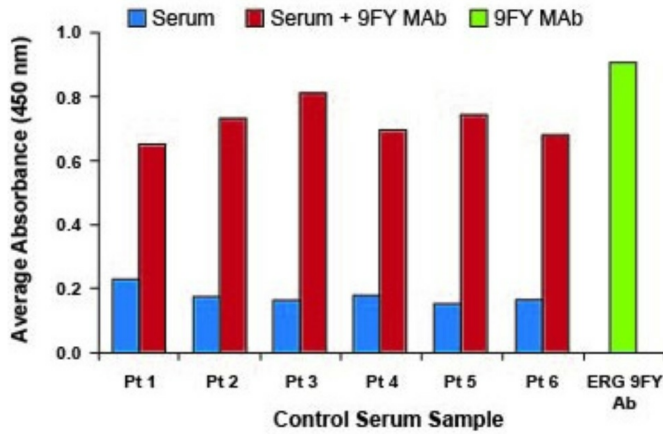


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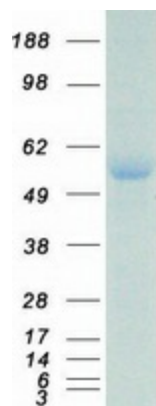
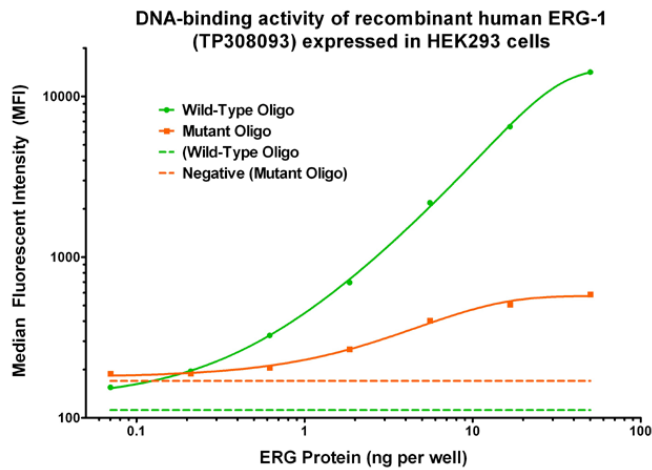
|                      |  |
|----------------------|--|
| <b>Bioactivity:</b>  | Varying amounts of human ERG expressed in HEK293 cells was incubated for one hour with wild-type or mutant biotinylated oligonucleotide (1 pmole/ul) in the presence of 25 ug/ml poly dl:dC. The reaction mixture was subsequently transferred to a microplate containing 2500 Luminex beads coupled with anti-ERG monoclonal antibody 2G8. The ERG-oligo complexes were captured onto the antibody-coated beads for two hours at room temperature with shaking. The beads were then washed, and the biotin was detected with streptavidin-phycoerythrin for 30 minutes. The beads were washed again and the fluorescent intensity was read in the Luminex instrument. The wild-type oligonucleotide carried ACCGGAAGT consensus binding sequence while the mutant oligonucleotide was identical except for a 2-base mutation in the consensus binding region, ACCCCAAGT ELISA capture for autoantibodies (PMID: <a href="#">28191285</a> )  |
| <b>Preparation:</b>  | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.   |
| <b>Note:</b>         | For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.   |
| <b>Storage:</b>      | Store at -80°C.  |
| <b>Stability:</b>    | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.  |
| <b>RefSeq:</b>       | <a href="#">NP_891548</a>  |
| <b>Locus ID:</b>     | 2078   |
| <b>UniProt ID:</b>   | <a href="#">P11308</a>   |
| <b>RefSeq Size:</b>  | 3055   |
| <b>Cytogenetics:</b> | 21q22.2  |
| <b>RefSeq ORF:</b>   | 1437   |
| <b>Synonyms:</b>     | erg-3; p55   |
| <b>Summary:</b>      | This gene encodes a member of the erythroblast transformation-specific (ETS) family of transcriptions factors. All members of this family are key regulators of embryonic development, cell proliferation, differentiation, angiogenesis, inflammation, and apoptosis. The protein encoded by this gene is mainly expressed in the nucleus. It contains an ETS DNA-binding domain and a PNT (pointed) domain which is implicated in the self-association of chimeric oncoproteins. This protein is required for platelet adhesion to the subendothelium, inducing vascular cell remodeling. It also regulates hematopoiesis, and the differentiation and maturation of megakaryocytic cells. This gene is involved in chromosomal translocations, resulting in different fusion gene products, such as TMPSSR2-ERG and NDRG1-ERG in prostate cancer, EWS-ERG in Ewing's sarcoma and FUS-ERG in acute myeloid leukemia. More than two dozens of transcript variants generated from combinatorial usage of three alternative promoters and multiple alternative splicing events have been reported, but the full-length nature of many of these variants has not been determined. [provided by RefSeq, Apr 2014] |

Protein Families: Druggable Genome, Transcription Factors

## Product images:



Healthy donor control sera (designated as C1-C6), negative for ERG autoantibodies, were spiked with ten ng/ml of ERG MAb 9FY and assayed for detection sensitivity. Positive reactivities indicate that recombinant ERG protein (OriGene TP308093) coated on microtiter wells serves as a suitable substrate for autoantibody detection. ERG MAb 9FY tested alone as a positive control, is shown in green. Figure cited from Genes Cancer, PMID: 28191285



Coomassie blue staining of purified ERG protein (Cat# TP308093). The protein was produced from HEK293T cells transfected with ERG cDNA clone (Cat# [RC208093]) using MegaTran 2.0 (Cat# [TT210002]).