

# Recombinant Full Length Human ESRRG Protein, GST-tagged

Cat. No. ESRRG-4729HF Lot. No. (See product label)

## SPECIFICATION

**Product Overview** Human ESRRG full-length ORF ( AAH64700, 1 a.a. - 442 a.a.) recombinant protein with GST-tag at N-terminal.

**Species** Human

**Source** In Vitro Cell Free System

**ProteinLength** 442 amino acids

### Description

This gene encodes a member of the estrogen receptor-related receptor (ESRR) family, which belongs to the nuclear hormone receptor superfamily. All members of the ESRR family share an almost identical DNA binding domain, which is composed of two C4-type zinc finger motifs. The ESRR members are orphan nuclear receptors; they bind to the estrogen response element and steroidogenic factor 1 response element, and activate genes controlled by both response elements in the absence of any ligands. The ESRR family is closely related to the estrogen receptor (ER) family. They share target genes, co-regulators and promoters, and by targeting the same set of genes, the ESRRs seem to interfere with the ER-mediated estrogen response in various ways. It has been reported that the family member encoded by this gene functions as a transcriptional activator of DNA cytosine-5-methyltransferases 1 (Dnmt1) expression by direct binding to its response elements in the DNMT1 promoters, modulates cell proliferation and estrogen signaling in breast cancer, and negatively regulates bone morphogenetic protein 2-induced osteoblast differentiation and bone formation. Multiple alternatively spliced transcript variants have been

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identified, which mainly differ at the 5' end and some of which encode protein isoforms differing in the N-terminal region. [provided by RefSeq, Aug 2011]

**Molecular Mass** 74.36 kDa

**AA Sequence**

```
MSNKDRHIDSSCSSFIKTEPSSPASLTDSVNHHSPPGGSSDASGSYSSTMNGHQGL
DSPPLYPSAPILGGSGPVRKLYDDCSSTIVEDPQTKCEYMLNSMPKRLCLVCGDIAS
GYHYGVASCEACKAFFKRTIQGNIEYSCPATNECEITKRRRKSCQACRFMKCLKVG
MLKEGVRLDRVRGGRQKYKRRIDAENSPYLNPLVQPAKKPLLWSDPADNKIVSHL
LVAEPEKIYAMPDPTAPDSDIKALTTLCDLADRELVVIIGWAKHIPGFSTLSLADQMSL
LQSAWMEILILGVVYRSLSFEDLVYADDYIMDEDQSKLAGLLDLNAILQLVKKYKS
MKLEKEEFVTLKAIALANSDSMHIEDVEAVQKLQDVLHEALQDYEAGQHMEDPRRA
GKMLMTLPLLRQTSTKAVQHFYNIKLEGKVPMHKLLLEMLEAKV
```

**Applications**

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

**Notes** Best use within three months from the date of receipt of this protein.

**Storage** Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

**Storage Buffer** 50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

## GENE INFORMATION

**Gene Name** [ESRRG estrogen-related receptor gamma \[ Homo sapiens \]](#)

**Official Symbol** [ESRRG](#)

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|-----------------------|--|
| <b>Synonyms</b>       | ESRRG; estrogen-related receptor gamma; ERR gamma-2; estrogen receptor-related protein 3; nuclear receptor subfamily 3 group B member 3; ERR3; NR3B3; ERRgamma; FLJ16023; KIAA0832; DKFZp781L1617; |
| <b>Gene ID</b>        | 2104   |
| <b>mRNA Refseq</b>    | NM_001134285   |
| <b>Protein Refseq</b> | NP_001127757   |
| <b>MIM</b>            | 602969   |
| <b>UniProt ID</b>     | P62508   |

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