Recombinant Human ESR1 Protein (Met297-Ser554), His tagged

Cat. No. ESR1-2301H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Era (Met297-Ser554) protein fused with His tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Met297-Ser554
Description	An ESR1 gene mutation, which encodes for the estrogen receptor (ER) protein, is one of the potential mechanisms of therapy resistance. The ESR1 mutations result in conformational changes in the ER leading to subsequent estrogen-independent transcriptional activity. The mutations within the estrogen receptor (ER) gene, ESR1, frequently occur in metastatic breast cancer and influence response to hormone therapy. Estrogen receptor alpha (ERalpha) is one of the estrogen hormone-activated transcription factors, which regulates a large number of genes and is involved in the mammary gland development. Expression of ERalpha is considered to be a good indicator for endocrine therapy and breast cancer survival. Loss of ERalpha in breast cancer patients indicates invasiveness and poor prognosis. ESR1 as a direct target of miR-31a-3p and suggest that miR-31a-3p likely contributes to development of estrogen independence, which leads to a more invasive phenotype of breast cancer. Polymorphisms of the estrogen receptor gene alpha (ESR1) are consistently been associated with bone mineral density (BMD) and fracture.

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Molecular Mass	30.07 kDa
Purity	>90 % as determined by SDS-PAGE.
Notes	For research use only.
Storage	Use a manual defrost freezer and avoid repeated freeze thaw cycles. Store at 2 to 8 centigrade for one week. Store at -20 to -80 centigrade for twelve months from the date of receipt.
Storage Buffer	Supplied as solution form in PBS pH 7.5 or lyophilized from PBS pH 7.5.
Reconstitution	Reconstitute in sterile water for a stock solution.
Shipping	In general, proteins are provided as lyophilized powder/frozen liquid. They are shipped out with dry ice/blue ice unless customers require otherwise.

GENE INFORMATION

Gene Name	ESR1 estrogen receptor 1 [Homo sapiens (human)]
Official Symbol	ESR1
Synonyms	ESR1; estrogen receptor 1; ESR; estrogen receptor; Era; NR3A1; ER-alpha; estradiol receptor; estrogen nuclear receptor alpha; estrogen receptor alpha delta 4 +49 isoform; nuclear receptor subfamily 3 group A member 1; estrogen receptor alpha 3*,4,5,6,7*/822 isoform; estrogen receptor alpha delta 4*,5,6,7*/654 isoform; estrogen receptor alpha delta 4*,5,6,7,8*/901 isoform; estrogen receptor alpha delta 3*,4,5,6,7*/819-2 isoform; estrogen receptor alpha delta 3*,4,5,6,7*,8*/941 isoform; ER; ESRA; DKFZp686N23123;

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Gene ID	2099
mRNA Refseq	NM_000125
Protein Refseq	NP_000116
MIM	133430
UniProt ID	P03372

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