

Recombinant Human paired box 8, His-tagged

Cat. No. PAX8-675H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	PAX8, 1-287aa Human, His tag, E.coli
Species	Human
Source	E.coli
ProteinLength	1-287 a.a.
Description	Paired box protein Pax-8 isoform PAX8E, also known as PAX8, is expressed in the developing and adult thyroid, the developing secretory system and at lower levels, in the adult kidney. PAX8 complexes with TTF-1 and TTF-2 to induce thyroid follicular cell differentiation and thyroid hormone biosynthesis by regulating the expression of sodium iodide symporter (NIS), thyroid peroxidase (TPO), thyroglobulin (TG) and the thyrotropin receptor (TSHR). Defects in PAX8 are the cause of congenital hypothyroidism non-goitrous type 2 (CHNG2). Recombinant human PAX8 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Form	Liquid. In Phosphate buffer saline (pH 7.4) containing 20% glycerol, 1mM DTT
Molecular Mass	33.4 kDa (310aa) confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGSMPHNSIR SGHGGLNQLG GAFVNGRPLP EVVRQRIVDL AHQGVPRCDI SRQLRVSHGC VSKILGRYYE TGSIRPGVIG GSKPKVATPK VVEKIGDYKR QNPTMFAWEI RDRLAEGVC DNDTVPSVSS

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INRIIRTKVQ QPFNLPMDS VTKSLSPGH TLIPSSAVTP PESQSDSLG
 STYSINGLLG IAQPGSDKRK MDDSDQDSCR LSIDSQSSSS GPRKHLRTDA
 FSQHHLEPLE CPFERQHYPE AYASPSHTKG EQEVNTLAMP MATPPTPPTA
 RPGASPTPAC

Purity >90% by SDS - PAGE

Storage Can be stored at +4C short term (1-2 weeks). For long term storage, aliquot and store at -20C or -70C. Avoid repeated freezing and thawing cycles.

Concentration 0.25 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name [PAX8 paired box 8 \[Homo sapiens \]](#)

Official Symbol PAX8

Synonyms PAX8; paired box 8; paired box gene 8; paired box protein Pax-8; paired domain gene 8;

Gene ID [7849](#)

mRNA Refseq [NM_003466](#)

Protein Refseq [NP_003457](#)

MIM [167415](#)

UniProt ID [Q06710](#)

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Chromosome Location	2q13
Pathway	Id Signaling Pathway, organism-specific biosystem; Pathways in cancer, organism-specific biosystem; Thyroid cancer, organism-specific biosystem; Thyroid cancer, conserved biosystem; Transcriptional misregulation in cancer, organism-specific biosystem; Transcriptional misregulation in cancer, conserved biosystem;
Function	DNA binding; DNA binding; RNA polymerase II core promoter sequence-specific DNA binding; protein binding; sequence-specific DNA binding; sequence-specific DNA binding transcription factor activity; thyroid-stimulating hormone receptor activity; transcript

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