

Recombinant Human HOXB4 Protein (His Tag)

Catalog No. PKSH033457

Note: Centrifuge before opening to ensure complete recovery of vial contents.

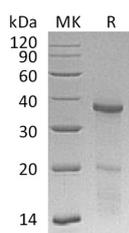
Description

Synonyms	Homeobox protein Hox-B4;Homeobox protein Hox-2.6;Homeobox protein Hox-2F;HOXB4;HOX2F
Species	Human
Expression Host	E.coli
Sequence	Met1-Leu251(Leu175Asp,Glu176Lys,Glu178Lys)
Accession	P17483
Calculated Molecular Weight	29.8 kDa
Observed molecular weight	36 kDa
Tag	N-His
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.
Formulation	Supplied as a 0.2 µm filtered solution of 4mM HCl.
Reconstitution	Not Applicable

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Homeobox B4 (HOXB4) is encoded by the HOXB4 gene which is a member of the the class I homeobox (HOX) gene family and encodes a nuclear protein with a homeobox DNA-binding domain. These genes are master control regulators of developmental programs including embryonic and adult hematopoiesis. Multiple HOX genes, including HOXB4, are highly expressed in the hematopoietic stem cells (HSC) compartment. HOXB4 gene can act in opposite ways when expressed by different cells, promoting the proliferation of stem cells whilst activating the apoptotic pathway in some

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embryonic structures. The protein HOXB4, as a homeodomain transcription factor, has been shown to be an important regulator of stem cell renewal and hematopoiesis. Incellular or ectopic expression of HOXB4 expands hematopoietic stem and progenitor cells in vivo and in vitro, making it a potential candidate for therapeutic stem cell expansion.