Recombinant Human HOXA1 Protein (His Tag)

Catalog Number: PKSH030798

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

Description	
Species	Human
Source	E.coli-derived Human HOXA1 protein Met 1-His 335, with an N-terminal His
Calculated MW	38 kDa
Observed MW	42 kDa
Accession	P49639-1
Bio-activity	Not validated for activity
Properties	
Purity	> 85 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 50mM Tris, 30% glycerol, pH 7.5
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants
	before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.





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Background

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Homeobox protein Hox-A1 is a transcription factor encoded by HOXA1 gene. This gene is one of the four types of homeobox genes each of which contains a homobox DNA sequence that codes for the homeodomain, a region of 60 amino acids responsible for the DNA binding exhibited by these homeobox proteins. These Homeobox genes are essential metazoan genes as they determine the identity of embryonic regions along the anterio-posterior axis. The homeobox protein Hox-A1 may be involved in the placement of hindbrain segments in the proper location along the anterior-posterior axis during development. Early in its development, the vertebrate hindbrain is transiently subdivided into a series of compartments called rhombomeres. Genes have been identified whose expression patterns distinguish these cellular compartments. Two of these genes, Hoxa1 and Hoxa2, have been shown to be required for proper patterning of the early mouse hindbrain and the associated neural crest. It has been detected HOXA1 expression in a variety of human breast cancer lesions, suggesting that HOXA1 may be required for the establishment of breast cancer cells phenotype.