



Recombinant Human ccbe1 (Fragment)

20170821BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no:	300-058
Size:	20 µg
Lot. No.:	According to product label
Country of origin:	Germany

Scientific Background

Gene:	<i>ccbe1</i>
Synonyms:	Collagen and calcium-binding EGF domain-containing protein 1

The lymphatic system comprises a vascular system separate from the cardiovascular system, essential for immune responses, fluid homeostasis and fat absorption. Lymphatic vessels develop in a complex process termed lymphangiogenesis that involves budding, migration and proliferation of lymphatic endothelial progenitor cells. A few genes, such as *FLT4*, *FOXC2* and *SOX18*, are known to be critically involved in lymph vessel formation in humans.

Lymphedema, lymphangiectasias, mental retardation and unusual facial characteristics define the autosomal recessive Hennekam syndrome. Homozygosity mapping identified a critical chromosomal region containing *ccbe1*, encoding Collagen and Calcium-Binding EGF-domain-1, a secreted protein which is required for embryonic lymphangiogenesis in zebrafish.

ccbe1 is not expressed in endothelial cells of lymph vessels, and it may be a component of the extracellular matrix. In zebrafish, *ccbe1* expression was observed along the earliest migration routes of endothelial cells that sprout from the posterior cardinal vein and migrate circuitously before developing into lymphatic vessels. *ccbe1* might therefore be involved in guidance of these migrating cells.

Sequence

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ECREGYIREDDGKTC TRGDKYPNDTGHEKSEN MVKAGTCCATCKEF  
YQMKQTVLQLKQKIALLPNNAADLGKYITGDKV LASNTYLP GPPGL  
EHHHHHH
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Database References

Protein RefSeq:	NP_597716.1
Uniprot ID:	Q6UXH8
mRNA RefSeq:	NM_133459.3

Product Specifications

Expressed in	E.coli
Purity	> 98% by SDS-PAGE & Coomassie stain
Buffer	PBS
Stabilizer	None
Formulation	lyophilized
Length (aa):	99
MW:	~14 kDa
Result by N-terminal sequencing	ECREGYI

Stability: The lyophilized human *ccbe1*, though stable at room temperature, is best stored desiccated below 0°C.

Reconstitution: Human *ccbe1* should be reconstituted in PBS to a concentration of 0.1 mg/ml. This solution can be diluted in water or other buffer solutions or stored at -20°C.



AVOID REPEATED FREEZE AND THAW CYCLES!

Application: Positive control for Western blotting.

References

1. Barton et al, British J Cancer 102, 2010
2. Connell et al, Hum Genet 127, 2010
3. Alders et al, Nature Genetics 41, 2009



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Handling/Application

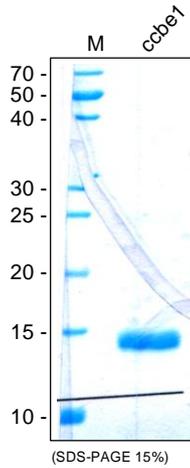


Fig. 1: SDS-PAGE analysis of recombinant human ccbe1 fragment produced in *E. coli*. Sample was loaded in 15% SDS-polyacrylamide gel under reducing conditions and stained with Coomassie stain.