

Datasheet for ABIN2870605

Angiopoietin 2 Protein (ANGPT2) (AA 275-496) (His tag)[Go to Product page](#)**1** Image**1** Publication

Overview

Quantity:	100 µg
Target:	Angiopoietin 2 (ANGPT2)
Protein Characteristics:	AA 275-496
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Angiopoietin 2 protein is labelled with His tag.

Product Details

Sequence:	AA 275-496
Characteristics:	This protein carries a polyhistidine tag at the N-terminus. The protein has a calculated MW of 26.3 kDa. The protein migrates as 30-33 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Purity:	>95 % as determined by reduced SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	Angiopoietin 2 (ANGPT2)
Alternative Name:	Angiopoietin-2 (ANGPT2 Products)
Background:	Angiopoietin-2 is also known as ANGPT2, AGPT2, ANG2, and is a secreted glycoprotein that plays a complex role in angiogenesis and inflammation. Ang2 is widely expressed during

Target Details

development, but it is restricted postnatally to highly angiogenic tissues such as the placenta, ovaries, and uterus. It is particularly abundant in vascular endothelial cells (EC) where it is stored in intracellular Weibel Palade bodies. Both Ang2 and the related Angiopoietin1 (Ang1) are ligands for the receptor tyrosine kinase Tie 2. Ang2 functions as a proangiogenic factor, although it can also induce EC death and vessel regression. Upon its release from quiescent EC, it regulates vascular remodeling by promoting EC survival, proliferation, and migration and destabilizing the interaction between EC and perivascular cells. Ang2 is required for postnatal vascular remodeling, and it cooperates with Ang1 during lymphatic vessel development. It mediates the upregulation of ICAM1 and VCAM1 on EC, which facilitates the adhesion of leukocytes during inflammation. Ang2 competitively inhibit Ang1-induced endothelial cell responses mediated by Tie2, and reduces vascular integrity. But the role of Ang2 is controversial since the opposite outcomes has been reported in other studies. Over-expression of Ang2 disrupts the vascular remodeling, induce endothelial cell apoptosis, and may play an important regulating role in tumor angiogenesis. Ang2 also promotes the neuronal differentiation and migration of subventricular zone progenitor cells.

Molecular Weight:	26.3 kDa
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Pathways:	RTK Signaling
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Application Details

Restrictions:	For Research Use only
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Handling

Format:	Lyophilized
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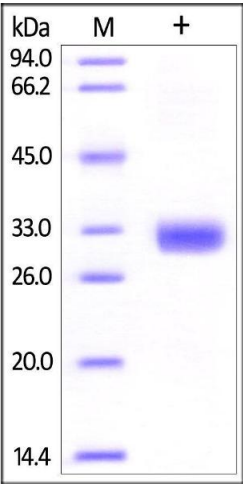
Buffer:	20 mM MOPS, 150 mM NaCl, pH 7.5
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Handling Advice:	Please avoid repeated freeze-thaw cycles.
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Storage:	-20 °C
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Publications

Product cited in:	Kang, Kim, Jeong, Im: "Angiopoietin-2 Enhances Osteogenic Differentiation of Bone Marrow Stem Cells." in: Journal of cellular biochemistry , Vol. 118, Issue 9, pp. 2896-2908, (2017) (PubMed).
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SDS-PAGE

Image 1. Human Angiopoietin-2 (275-496), His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.