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Certificate of Analysis Analysezertifikat Certificat d'Analyse

Product name	Vitronectin, Human, clone BV1		
Catalog number	TE2036-100UG		
Lot number	xxxxxXxxxx	**Expiry date**	MMM YYYY
Volume	1 ml	**Amount**	100 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	**Concentration**	100 µg/ml
Host Species	Mouse IgG1	**Conjugate**	None
Endotoxin	N.A.	**Purification**	Protein G
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #								
Yes			•	•		•	•	•
No								
N.D.	•	•			•			

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

General Information

Description

Monoclonal antibody BV1 recognizes human vitronectin. Vitronectin is an abundant glycoprotein (~75 kDa), consisting of 459 amino acids. About one third of the protein molecular mass is composed of carbohydrates. Vitronectin is found in blood plasma and the extracellular matrix. Vitronectin is a multifunctional protein, since it promotes attachment and spreading of animal cells in vitro, it inhibits cytolysis by the complement C5b-9 complex, and it modulates antithrombin III-thrombin action in blood coagulation. The protein consists of three domains: the N-terminal Somatomedin B domain (1-39), a central domain with hemopexin homology (131-342) and a C-terminal domain (347-459) also with hemopexin homology. The Somatomedin B domain binds to Plasminogen Activator Inhibitor-1 (PAI-1) and is responsible for PAI-1 stabilization. Furthermore, the Somatomedin B domain can also interact with the urokinase plasminogen activator receptor (uPAR). Vitronectin-uPAR interaction is required and sufficient to initiate downstream changes in cell morphology, migration and signal transduction. High plasma levels of both PAI-1 and uPAR have been shown to correlate with a negative prognosis for cancer patients. Additionally, vitronectin is a component of platelets and is as such involved in hemostasis. Amino acid 45-47 (RGD) are capable of binding to membrane bound integrins, which serve to anchor cells to the extracellular matrix. Vitronectin in plasma is an inactive monomer form. In contrast, tissue vitronectin is an active multimeric form and is able to interact with various matrix ligands like proteoglycans and collagen. Mice with a genetic deletion of vitronectin show delayed wound healing, suggesting an important role of vitronectin in tissue remodeling after injury. The monoclonal antibody BV1 binds to soluble vitronectin as well as to membrane bound vitronectin.

Aliases

Serum spreading factor, complement S-protein

References

1. Martin-Padura, I et al; Expression of VE (vascular endothelial)-cadherin and other endothelial-specific markers in haemangiomas. J path 1995, *175*: 51
2. Zanetti, A et al; Clustering of vitronectin and RGD peptides on microspheres leads to engagement of integrins on the luminal aspect of endothelial cell membrane. Blood 1994, *84*: 1116

Storage&stability

Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

Precautions

For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC Date

Do you have any questions or comments regarding this product? Please contact us via info@tecomedical.com

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