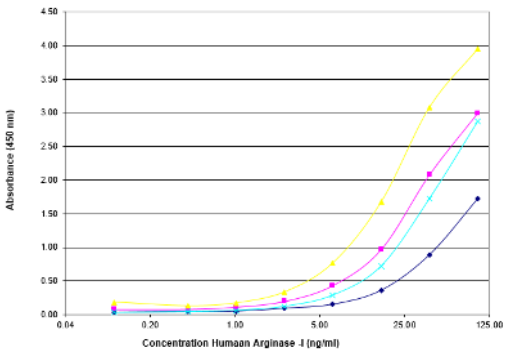
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Arginase-1, Human, clone 6G3		
Catalog number	HM2162-20UG		
Lot number	-	**Expiry date**	-
Volume	200 µl	**Amount**	20 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



IA: HM2162 specificity test. Different concentrations of HM2162 have been tested. The antibody has been used as capture antibody.

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.

- FC: the fixation step was performed with 2% formaldehyde in PBS and the permeabilization step with 0.5% saponin in PBS.
- IA: the antibody can be used as capture antibody.

General Information

Description Monoclonal antibody 6G3 reacts specifically with Arginase I, the final enzyme in the urea cycle, which is responsible for the hydrolysis of arginine to urea and ornithine. The highest concentration of the enzyme is present in the liver in which the bulk of ureagenesis occurs. Two types of arginases are known: Arginase I and II. The cytosolic enzyme found primarily in liver is Arginase I, a 35 kD protein that circulates as trimer. Arginase II is exclusively located in the mitochondrion. Arginase I is next to the liver in man also expressed by mature fetal and adult red blood cells and activated monocytic cells. During inflammation induction of Arginase I by inflammatory cytokines in monocytic cells is considered to lead to a local depletion of arginine resulting in a microenvironment that prevents nitric oxide production and arginine dependent T cell function. Arginase II is expressed by kidney, nucleated red blood cells, brain, spinal cord, gastro-intestinal tract, mammary gland and prostate. Enhanced circulating Arginase I levels have been reported after surgery, following haemorrhage and in asthmatic patients. Measurement of circulating Arginase I has been used experimentally as rapid marker for liver injury.

Immunogen Recombinant human type-1 arginase.

Cross reactivity Porcine: Yes; Rat: Yes.

References

1. Ikemoto, M et al; A useful ELISA system for human liver-type arginase, and its utility in diagnosis of liver diseases. Clin Biochem 2001, *34*: 455
2. Kropf, P et al; Arginase activity mediates reversible T cell hyporesponsiveness in human pregnancy, Eur J Immunol 2007, *37*:935
3. Luckner-Minden, C et al; Human eosinophil granulocytes do not express the enzyme arginase, JLB 2010, *87*:1125
4. Sim, S et al; Influence of chemotherapy on nitric oxide synthase, indole-amine-2,3-dioxygenase and CD124 expression in granulocytes and monocytes of non-small cell lung cancer, Cancer Science 2011, *103*: 155
5. Abebe, T et al; Local Increase of Arginase Activity in Lesions of Patients with Cutaneous Leishmaniasis in Ethiopia, PlosOne 2012, *6*:e1684
6. Abebe, T et al; Arginase Activity - A Marker of Disease Status in Patients with Visceral Leishmaniasis in Ethiopia, PlosOne 2013, *7*: e2134
7. Takele, Y et al; Arginase Activity in the Blood of Patients with Visceral Leishmaniasis and HIV Infection, PlosOne 2013*, 7*:e1977

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
Brenda Teunissen	18/11/2020

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