RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

MOUSE ANTI HUMAN ANGIOTENSIN II

With HRP-conjugated secondary antibody

Catalog No.	**Species:**	**Isotype:**
DS-MB-00082	Human	Mouse IgG2a

Description

Angiotensin is formed from a precursor, angiotensinogen, which is produced by the liver and found in the α-globulin fraction of plasma. The lowering of blood pressure is a stimulus to secretion of Renin by the kidney into the blood. Renin cleaves from angiotensinogen a terminal decapeptide, Angiotensin I (Ang I). This is further altered by the enzymatic removal of a dipeptide to form Angiotensin II (Ang II). Screening a panel of human-mouse somatic cell hybrids confirmed the assignment of the AGT locus to human chromosome 1. Ang II, an octapeptide hormone, is an important physiological effector of blood pressure and volume regulation through vasoconstriction, aldosterone release, sodium uptake and thirst stimulation. It has been shown that mechanical stress causes release of Ang II from cardiac myocytes and that Ang II acts as an initial mediator of the hypertrophic response. Ang II treatment also stimulates phosphorylation of Shc, FAK and MAP kinases and induces MKP-1, indicating stimulation of growth factor pathways. Ang II stimulation through AT1 has been shown to activate the JAK/Stat pathway involving a direct interaction between JAK2 and AT1 as demonstrated by co-immunoprecipitation.

Preparation

The immunogen is derived from synthetic peptide , DRVYIHPF corresponding to angiotensin II, conjugated to a proprietary molecular weight carrier. This antibody was produced from a hybridoma resulting from the fusion of a myeloma with B cells obtained from a mouse immunized with the immunogen. The IgG fraction of tissue culture supernatant was purified by Protein G affinity chromatography.

Specificity

DS-MB-00082 reacts with Angiotensin II and III. Negligible reactivity was observed with Angiotensin I and Angiotensinogen. Based on sequence similarity, is expected to react with:Horse, Pig, Sheep, Rat
N.B. Antibody reactivity and working conditions may vary between species.

Reconstitution

Supplied as 0.2 mg of purified liquid antibody in PBS, containing 0.09% Sodium Azide (NaN3).
Its final concentration is 1.0 mg/ml. **Please avoid freeze-thaw cycles.**

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Applications

Summary of antibody applications and working conditions

Options / Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA	•			1/50 - 1/200
Western Blotting			•	
Immunohistology - frozen			•	
Immunohistology - paraffin			•	
Immunohistology - resin			•	
Immunoprecipitation			•	
Flow Cytometry			•	
Immunofluorence staining			•	
Neutralization			•	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

Secondary Antibody Applications

Options / Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Immunoassay (ELISA, Western blot)	•			1:5000-1:10000

Storage

Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.