



20160502BB

Anti-Human Activin R2A (#6J16)

**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

Cat.-no.:	101-M171
Size:	100 µg
Lot. No.:	According to product label

Preparation: This antibody was produced from a hybridoma (mouse myeloma fused with spleen cells from a mouse immunized with recombinant human Activin receptor IIA extra cellular domain. IgG2 fraction of the tissue culture supernatant was purified by Protein G affinity chromatography.

Target Background

Synonyms (Target):	ACVR2A; ACVR2; ACTRII
---------------------------	-----------------------

Activin proteins are involved in a wide range of biological processes including mesoderm induction, neural cell differentiation, bone remodeling, hematopoiesis, the regulation of reproductive physiology, inflammation, and carcinogenesis. They function through heteromeric complexes of type I and type II serine/threonine kinase receptors. Dimeric ligands bind to a type II receptor, such as Activin Receptor IIA (ActRIIA or activin R2A), which then associates with a type I receptor to initiate signal transduction. ActRIIA mediates the pleiotropic effects of Activins and Inhibins as well as several members of the BMP and GDF families of TGF beta like proteins. Mature human ActRIIA is a 70 kDa glycoprotein that consists of a 116 amino acid (aa) extracellular domain (ECD), a 26 aa transmembrane segment, and a 352 aa cytoplasmic region that includes the kinase domain and a PDZbinding motif. Within the ECD, human ActRIIA shares 98% aa sequence identity with mouse and rat ActRIIA. Signaling through ActRIIA is modulated by its interaction with RGMB/ DRAGON, Cripto, Endoglin/CD105, TGF-beta RIII/Betaglycan, or BAMBI. These interactions can enhance ligandinduced signaling or interfere with signaling by preventing ActRIIA association with type I receptors. Activininduced responses can also be limited by the enhanced internalization of ActRIIA following its association with the cytoplasmic proteins ARIP1 and ARIP2.

Database References Target

Protein RefSeq:	NP_001607.1
Uniprot ID:	P27037
mRNA RefSeq:	NM_001616.3

Product Specifications

Host	Mouse
Reactivity against	Human
Clonality	Monoclonal Antibody
Clone	(#6J16)
Isotype	IgG2
Purification	Protein G chromatography
Antigen	recombinant human Activin receptor IIA extracellular domain
Formulation	lyophilized
Reconstitution buffer	PBS (sterile)

Reconstitution: Reconstitute the antibody with 200 µl sterile PBS and the final concentration is 500 µg/ml.

Stability: Lyophilized samples are stable for 2 years from date of receipt when stored at -70°C. Reconstituted antibody can be aliquoted and stored frozen at < -20 °C for at least for six months without detectable loss of activity.

Remarks: This antibody was selected for its ability to detect Activin Receptor IIA. No cross reactivity was found to human Activin RI and RIIB.

**AVOID REPEATED FREEZE AND THAW CYCLES!**

Applications

The antibody can be used within the following applications:

WB, IHC

Recommended usage:

WB 1:500 – 1:1000

IHC (Paraffin) 1:50 – 1:100

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!



Anti-Human Activin R2A (#6J16)

Application/Handling

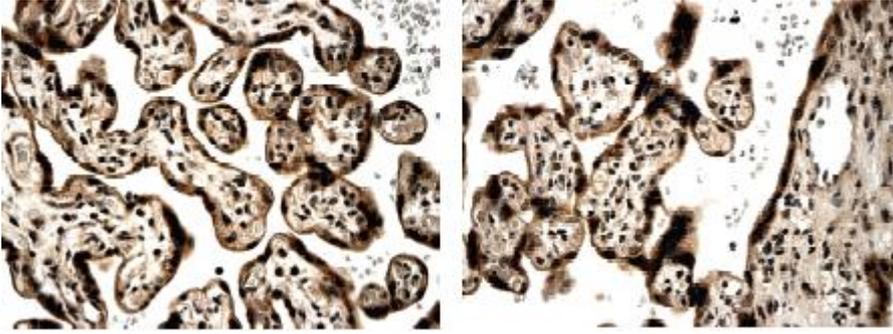


Fig. 1: Human placenta (formalin fixed and paraffin embedded) section is subjected to IHC using 101-M171.