

## DESCRIPTION

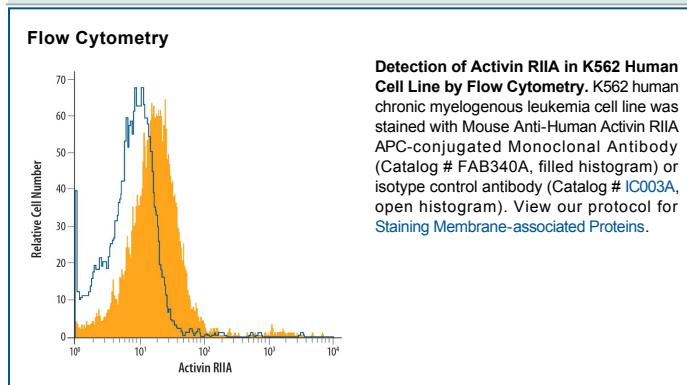
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Activin RIIA in direct ELISAs and Western blots. Does not cross-react with recombinant human (rh) Activin RIA, rhActivin RIB, or rhActivin RIIB.
<b>Source</b>	Monoclonal Mouse IgG <sub>2A</sub> Clone # 126706
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Activin RIIA Ala20-Pro134 Accession # P27037
<b>Conjugate</b>	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
<b>Formulation</b>	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Flow Cytometry</b>	10 µL/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

## BACKGROUND

Activin isoforms and other members of the TGF-β superfamily exert their biological effects by binding to heteromeric complexes of a type I and a type II serine-threonine kinase receptor, both of which are essential for signal transduction. To date, seven type I and five type II receptors, including the two type I and the two type II activin receptors, designated ActR-I(A), ActR-IB, ActR-II(A) and ActR-IIB, have been cloned from mammals. Through alternative mRNA splicing, multiple ActR-IIB isoforms can also be generated, adding to the complexity of the activin receptor system. Different activin isoforms bind with different high-affinities to the various type II isoforms. Type I activin receptors do not bind directly to activin, but will associate with the type II receptor-activin complex and initiate signal transduction. Besides the activin isoforms, ActR-II will also bind inhibin, BMP-2 and BMP-7 with lower affinities. ActR-I can also bind and form signaling complexes with the BMP-2/7-bound BMPR-II. Activin type II receptors are highly conserved. Human, mouse and rat type II activin receptors share greater than 98% amino acid sequence homology. Recombinant soluble activin type II receptors bind activin with high affinity, and are potent activin antagonists.

## References:

1. Attisano, L. *et al.* (1996) *Mol. and Cell. Biol.* **16**:1066.
2. Woodruff, T.K. (1998) *Biochem. Pharmacology*, **55**:953.