



## RayBiotech, Inc.

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### Certificate of Analysis and Data Sheet

## RABBIT ANTI HUMAN TGF ALPHA

With HRP-conjugated secondary antibody

**Catalog No.**

DS-PB-01936

**Species:**

Human

**Isotype:**

Rabbit IgG

### Description

Transforming growth factor- $\alpha$  (TGF $\alpha$ ) is an acid- and heat-stable 50 amino acid protein of 5.5 kDa originally found in rodents and humans. TGF $\alpha$  is 33% homologous at the amino acid level to epidermal growth factor (EGF). TGF $\alpha$  binds to the EGF receptor, mediates tyrosine phosphorylation of the receptor and promotes anchorage-independent growth of normal rat fibroblasts in soft agar in the presence of transforming growth factor- $\beta$ . TGF $\alpha$  is secreted by a variety of transformed cells and tumors, embryonic cells and some normal adult cells. TGF $\alpha$  bioactivity has been found in the urine of cancer patients. It has been suggested that it may act as an autocrine growth factor for the induction or maintenance of malignancy.

### Applications

Table Summary of antibody applications and working conditions

Options / Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA	•		•	0.5 ug/ml *(Direct)
Western Blotting	•		•	0.1ug/ml - 0.2ug/ml
Immunohistology - frozen			•	
Immunohistology - paraffin			•	
Immunohistology - resin			•	
Immunoprecipitation			•	
Flow Cytometry			•	
Immunofluorescence staining			•	
Functional Assays	•		•	2.5 - 2.7ug/ml

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

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



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### **Preparation**

Immunogen was recombinant human TGF-alpha. Antisera to human TGF-alpha were raised by repeated immunisation of rabbits with highly purified antigen. Purified IgG was prepared by antigen affinity chromatography.

### **Specificity**

DS-PB-01936 is specific for human TGF-alpha (transforming growth factor alpha), a 50 amino acid EGF-related polypeptide expressed in a range of tissues, including skin, pancreas, liver, duodenum, salivary glands, urinary and respiratory systems, and the developing and mature central nervous system (CNS). TGF-alpha is produced by monocytes, keratinocytes and neuronal cells and stimulates the proliferation of a range of epidermal and epithelial cells, through binding to the epidermal growth factor receptor (EGFR). TGFalpha is mitogenic for multipotent neural progenitors and is involved in astrogliosis.

### **Reconstitution**

Supplied as 100µg of purified antibody with 100µg of sterile PBS. Reconstitute with 0.1 ml distilled water. For long term storage the addition of 0.09% sodium azide is recommended. NB: For functional studies do not add azide. Its final concentration is 1.0mg/ml. **Please avoid freeze-thaw cycles.**

### **Secondary Antibody Applications**

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

### **Storage**

Prior to reconstitution store at 4<sup>0</sup>C; after reconstitution store at -20<sup>0</sup>C, if not intended for use within a month. This product should be store undiluted. Minimize freezing and thawing when use.

### **Reference**

Junier, Marie-Pierre. (2000) What role(s) for TGFa in the central nervous system? Prog. Neurobiol. 62: 443-473.

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