

## Pentraxin 3/TSG-14 Polyclonal Antibody(Capture/Detector)

catalog number: **AN000280P**

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

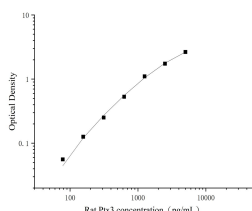
### Description

<b>Reactivity</b>	Rat
<b>Immunogen</b>	Recombinant Rat Pentraxin 3/TSG-14 protein expressed by E.coli
<b>Host</b>	Rabbit
<b>Isotype</b>	Rabbit IgG
<b>Purification</b>	Antigen Affinity Purification
<b>Buffer</b>	Phosphate buffered solution, pH 7.2, containing 0.05% proclin 300.

### Applications Recommended Dilution

<b>ELISA Capture</b>	2-8 µg/mL
<b>ELISA Detector</b>	0.1-0.4 µg/mL

### Data



Sandwich ELISA-Recombinant Rat Pentraxin 3/TSG-14 protein standard curve. Background subtracted standard curve using Pentraxin 3/TSG-14 antibody(AN000280P) (Capture), Pentraxin 3/TSG-14 antibody(AN000280P) (Detector) in sandwich ELISA. The reference range value for Recombinant Rat Pentraxin 3/TSG-14 protein is 6.86-5000 pg/mL.

### Preparation & Storage

<b>Storage</b>	Store at 4°C valid for 12 months or -20°C valid for long term storage, avoid freeze / thaw cycles.
<b>Shipping</b>	The product is shipped with ice pack, upon receipt, store it immediately at the temperature recommended.

### Background

### For Research Use Only

Pentraxin 3 (PTX3), TSG-14, was initially identified as a TNF- $\alpha$  or IL-1  $\beta$  inducible gene. It belongs to the pentraxin family, which was named originally for the homo-pentameric structure formed by its members. The pentraxin family is divided into two subfamilies: the “short” and the “long” pentraxins with approximate molecular weights of 25 kDa and 50 kDa, respectively. TSG-14 is a member of the long pentraxin subfamily, which also includes the *Xenopus laevis* XI-PXN1, the guinea pig apelin/p50, the rat neuronal pentraxin I (NPI) and NPR, the human neuronal pentraxin II (NPTX2) and the human neuronal activity-related pentraxin. Mature secreted TSG-14 contains a pentraxin-like domain at its carboxy-terminus that shares 23-28% amino acid (aa) sequence similarity to C-reactive protein (CRP) and serum amyloid P component (SAP), which belongs to the short pentraxin subfamily. However, the N-terminal sequence of TSG-14 does not share aa sequence homology with any of the “short” pentraxins. Unlike CRP and SAP, which forms pentamers only, TSG-14 forms both pentameric and higher ordered oligomers. Similarly to CRP and SAP, TSG-14 binds to the complement cascade component C1q. However, TSG-14 does not bind to phosphoethanolamine, phosphocholine, or high pyruvate agarose, which are known ligands for CRP and SAP. TSG-14 is a marker of the acute phase response and is highly expressed in advanced atherosclerotic plaques. While CRP and SAP are primarily produced in the liver, TSG-14 expression is strongly up regulated by TNF- $\alpha$ , IL-1  $\beta$ , and bacterial LPS in peripheral fibroblasts, endothelial cells, and macrophages.

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Toll-free: 1-888-852-8623  
Web: [www.elabscience.com](http://www.elabscience.com)

Tel: 1-832-243-6086  
Email: [techsupport@elabscience.com](mailto:techsupport@elabscience.com)

Fax: 1-832-243-6017

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