ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

## Pentraxin(PTX3/TSG-14) Antibodies

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|---|---|---|
| Cat. # PTX31-P | Mouse PTX3 control peptide # 1 | **SIZE**: 100 ug |
| Cat. # PTX31-A | **Rabbit** Anti-Mouse PTX3 IgG # 1 (aff pure) | **SIZE**: 100 ug |

**Pentraxins** are a family of proteins emerging from genes that are conserved in their carboxy-terminal halves a pentraxin domain and are prototypical acute phase proteins with acquired novel amino-terminal domains. Pentraxins, include C reactive protein (CRP) and Serum Amyloid P component (SAP), which serve as indicators of inflammatory reactions as a result of the exposure of liver cells to cytokines, mainly interleukin-6 (IL-6).

**PTX3 or TSG14 or long pentraxin** (human mature chain 364 aa, chromosome 3q25; ~43 kda ) is structurally related but different form classic pentraxins. PTX3 was clones as an IL-1 inducible gene in endothelial cells, and as TNF-inducible gene in fibroblasts called TSG14. The C-terminal half of PTX3 aligns with CRP and SAP, but the N-terminal half is unique. PTX3 is induced by LPS, IL-1 and TNF-alpha, but not IL-6. During an acute phase response induced by LPS, PTX3 is expressed in many organs (heart, skeletal muscle). PTX3 expression may be indicative of its role in cardiovascular and inflammatory pathology.

### Source of Antigen and Antibodies

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| **Antigen** | 16-aa peptide from **Mouse PTX3** (1); **Designation (PTX31-P, control peptide**) conjugated to KLH, epitope location ~ ~N-terminus |
| **Ab Host/type** | Rabbit, Polyclonal Aff pure IgG (**cat # PTX31-A**) purified over antigen-agarose column |
| **2-ab** | **Goat Anti-rabbit IgG-HRP** cat # 20320 (AP, biotin, FITC conjugates also available) |

### Form & Storage of Antibodies/Peptide Control

**Affinity pure IgG**

100 ug/100ul solution lyophilized powder

Supplied in **Buffer**: PBS+0.1% BSA

**Reconstitute powder** in PBS at 1mg/ml

**Control/blocking peptide**

100 ug/100 ul solution lyophilized powder

Supplied in Buffer: PBS pH 7.5,

**Reconstitute powder in PBS at 1 mg/ml.**

**Storage**

**Short-term**: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

**Long-term**: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability**: 6-12 months at –20oC or below.
**Shipping**: 4oC for solutions and room temp for powder.

### Recommended Usage

**Western Blotting** (1-10 ug/ml for affinity pure antibody using ECL technique).

**ELISA**: Control peptide can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (0.5-1 ug/ml for affinity pure).

**Histochemistry** & Immunofluorescence: Not tested. We recommend the use of aff pure IgG at 2-20 ug/ml.

### Specificity & Cross-reactivity

The Mouse PTX31-P control peptide is 93% homologous to human, and 87% to bovine PTX3 or Tumor necrosis factor-inducible protein-14, TSG-14). Antibody cross-reactivity in various species has not been studied. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol at: www.4adi.com\data\abblock.html).

**General References**: Andrea basile et al, (1997) JBC vol 272, No: 13, 8172-8178; Kamyar Zahedi et al (1997) JBC, Vol 272, No: 4, 2143-2148; Martino Introna et al (1996) Blood, Vol 87, No: 5 , 1868-1872; Giuseppe Peri et al (2000) Circulation, Vol 102, 636-641.

*This product is for In vitro research use only.

### Some New Antibodies from ADI…

PTX1-3, NPXs, CRP, SAP antibodies

Recombinant purified Human and mouse PTX3 (TSG-14)



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