

Polyclonal Antibody to Fructosyl-Amino Acid Oxidase [E.coli] - HRP

Catalog No.: R1147HRP

Quantity: 20 mg

Concentration: 10.0 mg/ml (by UV absorbance at 280 nm)

Background: Fructosyl amino acid oxidase (FAOX or FAOD) catalyzes the oxidative deglycation of fructosyl amino acids, yielding the corresponding amino acid, glucosone, and hydrogen peroxide. Glucose can be attached to amino acids by a nonenzymatic reaction called "glycation", to distinguish it from the enzymatic glycosylation of proteins. (FAOX) can be used for the enzymatic detection of nonenzymatically glycosylated proteins. Glycation of protein has been implicated in the development of diabetic complications and the aging process. Glycation of blood proteins such as hemoglobin and albumin is enhanced in diabetics with high blood glucose. The amounts of these glycosylated proteins reflect the level of blood glucose in periods corresponding to the half life of the protein (14 to 20 days for albumin and 1 to 2 months for hemoglobin). Since the glycation of blood proteins is not affected by transient increases in blood glucose, the levels of glycosylated proteins are good indices for monitoring diabetes mellitus patients during therapy. HbA1c, blood levels of which are a good index of the long term control of blood glucose in patients with diabetes mellitus, is defined as an amino end of the β subunit (valine residue) of hemoglobin that has been glycosylated nonenzymatically.

Host: Sheep

Immunogen: Fructosyl-Amino Acid Oxidase [E.coli].

Format: **State:** Lyophilized purified Ig fraction.

Purification: Multi-step process.

Buffer System: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 with 0.01% Gentamicin Sulfate as preservative and 10 mg/ml Bovine Serum Albumin (BSA, IgG and Protease free) as stabilizer.

Label: HRP – Horseradish Peroxidase

Reconstitution: Restore with 2.0 ml of deionized water (or equivalent).

Applications: Suitable for Immunoblotting (Western or Dot blot), ELISA, Immunoperoxidase electron microscopy and Immunohistochemistry as well as other peroxidase-antibody based enzymatic assays.

Recommended Dilutions: This product has been assayed against 1.0 mg of Fructosyl-Amino Acid Oxidase [E.coli] in a standard capture ELISA using ABTS (2,2'-azino-bis-[3-ethylbenzothiazoline-6-sulfonic acid]) as a substrate for 30 minutes at room temperature.

A working dilution of 1:1,000 to 1:3,000 of the reconstitution concentration is suggested for this product.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This product is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Peroxidase, anti-Sheep Serum as well as purified and partially purified Fructosyl-Amino Acid Oxidase [E.coli].

Cross reactivity against Fructosyl-Amino Acid Oxidase from other sources is unknown.

Storage:

Store vial at 2-8°C prior to restoration. For extended storage add glycerol to 50% and then aliquot contents and freeze at -20°C or below. Centrifuge product if not completely clear after standing at room temperature.

This antibody is stable for one month at 2-8°C as an undiluted liquid.

Dilute only prior to immediate use.

Avoid repeated freezing and thawing.

Shelf life: One year from despatch.

Caution:

Do Not Use Sodium Azide as Preservative.

General Readings:

Farr & Nakane, J. Immunol. Methods 47; 129-144. 1981. (Conjugation)