

# **California Bioscience**

## **Product Datasheet**

Product Name	Fetuin, Alpha-2 HS Glycoprotein Human
Cata No	CB5001039
Source	Purified from the human plasma
Synonyms	Alpha-2-HS-glycoprotein, Fetuin-A, Alpha-2-Z-globulin, Ba-alpha-2-glycoprotein,
	AHSG, FETUA, AHS, A2HS, HSGA, PRO2743.

### Description

Fetuin is a liver-produced negative acute phase protein composed of two subunits, the A and B chains.

Fetuin homologs have been identified in several species including rat, sheep, pig, rabbit, guinea pig, cattle, mouse and human. Multiple physiological roles for these homologs have been suggested, including ability to bind to hydroxyapatite crystals and to specifically inhibit the tyrosine kinase (TK) activity of the insulin receptor (IR).

Fetuin-A (alpha2-Heremans-Schmid glycoprotein; AHSG) is an important circulating inhibitor of calcification in vivo, and is downregulated during the acute-phase response.

Sera from patients on long-term dialysis with low AHSG concentrations showed impaired ex-vivo capacity to inhibit Ca<sub>x</sub>PO<sub>4</sub> precipitation.

Fetuin may influence the resolution of inflammation by modulating the phagocytosis of apoptotic cells by macrophages.

ASHG blocks TGF-beta-dependent signaling in osteoblastic cells, and mice lacking ASHG display growth plate defects, increased bone formation with age, and enhanced cytokine-dependent osteogenesis.

#### **Physical Appearance**

Sterile Filtered White lyophilized (freeze-dried) powder.

### Purity

Greater than 95% as determined by SDS-PAGE.

### Formulation

Sterile filtered and lyophilized from 0.5 mg/ml in 0.02M TRIS-HCl pH-8.0, with 0.2M NaCl.

#### Reconstitution

Add 0.2 ml of deionized  $H_2O$  and let the lyophilized pellet dissolve completely.

### Stability

Store the lyophilized protein at -20°C. Aliquot the product after reconstitution to **avoid repeated freezing/thawing cycles**. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C. The lyophilized protein remains stable until the expiry date when stored at -20°C.

### **Applications:**

Western blotting, ELISA