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Polyclonal Antibody to Homocysteine - Serum

Catalog No.: AP32443SU-N

Quantity: 0.1 ml

Background: Homocysteine a sulphur containing amino acid, is formed by the transmethylation of methionine, an essential amino acid. Homocysteine may be irreversibly metabolised to cystathionine by cystathionine synthetase. This reaction uses pyridoxal phosphate (Vitamin B6) as a co-enzyme (see figure). The enzyme cystathionine synthetase is deficient in homocysteinuria, a rare genetic disease associated with high blood levels of homocysteine and the development of premature atherosclerosis. This and the association of other rare enzyme deficiencies with homocysteinemia and premature atherosclerosis led McCully to formulate the homocysteine hypothesis of atherosclerosis (McCully KS, The homocysteine theory of atherosclerosis. Atherosclerosis. 1976; 20: 23-27).

Host: Rabbit

Immunogen: Homocysteine-Glutaraldehyde-BSA

Format: **State:** Liquid Serum
Preservatives: 0.05% Sodium Azide

Applications: **ELISA:** 1/1,000-1/5,000.
The antibody may also work for Western blot and Immunohistochemistry (Use 1/500-1/2,500 as a trial dilution).
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody recognizes Homocysteine.
The cross-reactivities were determined using an ELISA test by competition experiments with the following compounds:
Compound: Cross-reactivity ratio
Homocysteine-G-BSA: 1
Cysteine-G-BSA: 1/450
Homocysteic acid-G-BSA: 1/› 100,000. *G=Glutaraldehyde, BSA=Bovine Serum Albumin.*

Species Reactivity: **Tested:** Rat.

Storage: Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.