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United States Patent [19]

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Wetterau, II et al.

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[54] **MICROSOMAL TRIGLYCERIDE TRANSFER PROTEIN**

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[73] Assignee: **E. R. Squibb & Sons, Inc.**, Princeton, N.J.

[21] Appl. No.: **486,924**

[22] Filed: **Jun. 7, 1995**

Related U.S. Application Data

[60] Division of Ser. No. 117,362, Sep. 3, 1993, Pat. No. 5,595, 872, which is a continuation-in-part of Ser. No. 15,449, Feb. 22, 1993, abandoned, which is a continuation-in-part of Ser. No. 847,503, Mar. 6, 1992, abandoned.

[51] **Int. Cl.⁶** **C12P 21/02**; C07K 14/00; C12Q 1/00; C12Q 1/25

[52] **U.S. Cl.** **435/69.1**; 435/15; 435/320.1; 530/350; 536/23.5

[58] **Field of Search** 435/69.1, 320.1, 435/15; 530/350; 536/23.5

[56] **References Cited PUBLICATIONS**

Wetterau et al. "Protein Disulfide Isomerase is a Component of the Microsomal Triglyceride Transfer Protein Complex". *The Journal of Biological Chemistry*, vol. 265, No. 17, pp. 9800-9807, Jun. 15, 1990.

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[57] **ABSTRACT**

Nucleic acid sequences, particularly DNA sequences, coding for all or part of the high molecular weight subunit of microsomal triglyceride transfer protein, expression vectors containing the DNA sequences, host cells containing the expression vectors, and methods utilizing these materials. The invention also concerns polypeptide molecules comprising all or part of the high molecular weight subunit of microsomal triglyceride transfer protein, and methods for producing these polypeptide molecules. The invention additionally concerns novel methods for preventing, stabilizing or causing regression of atherosclerosis and therapeutic agents having such activity. The invention concerns further novel methods for lowering serum lipid levels and therapeutic agents having such activity.

5 Claims, 8 Drawing Sheets

FIG. 1

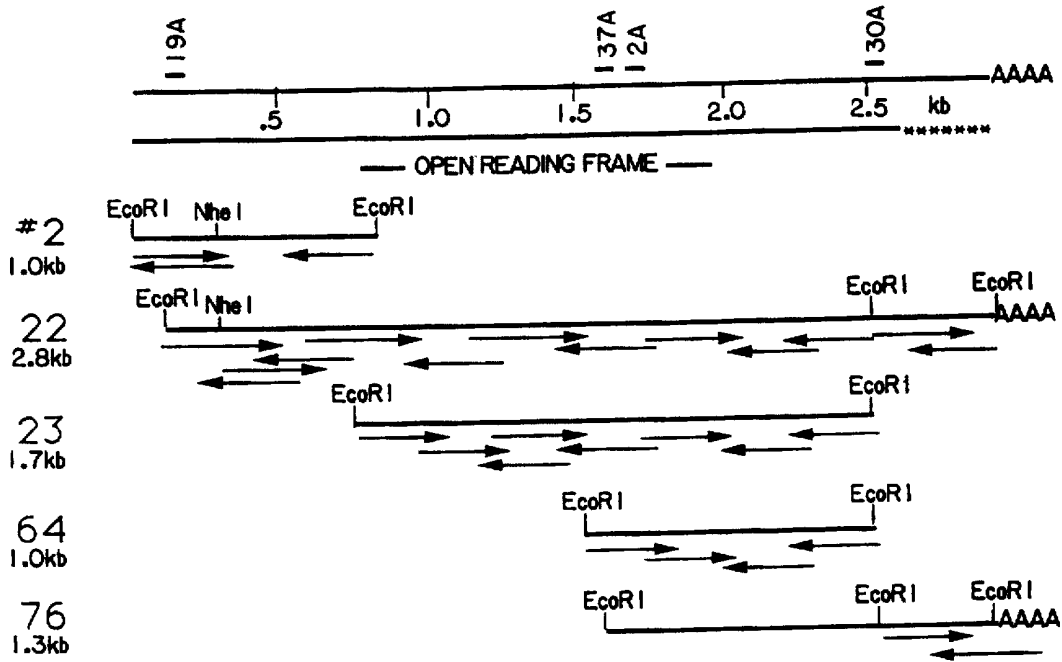


FIG. 2

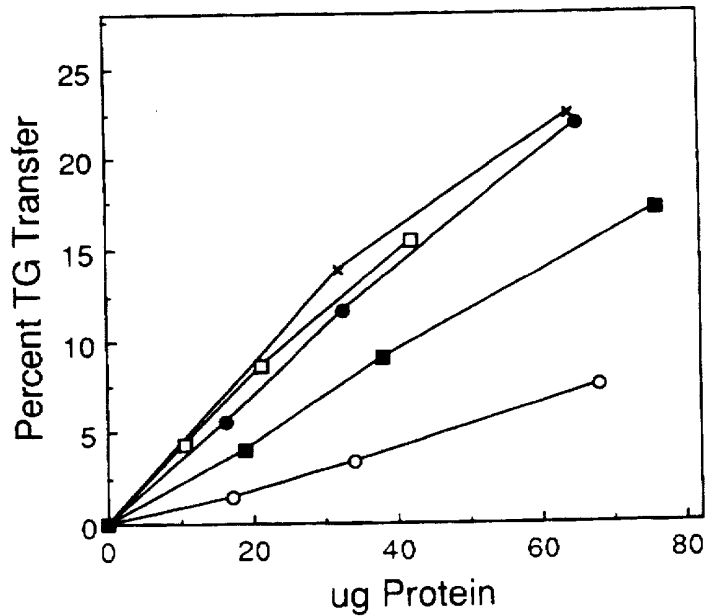


FIG. 3

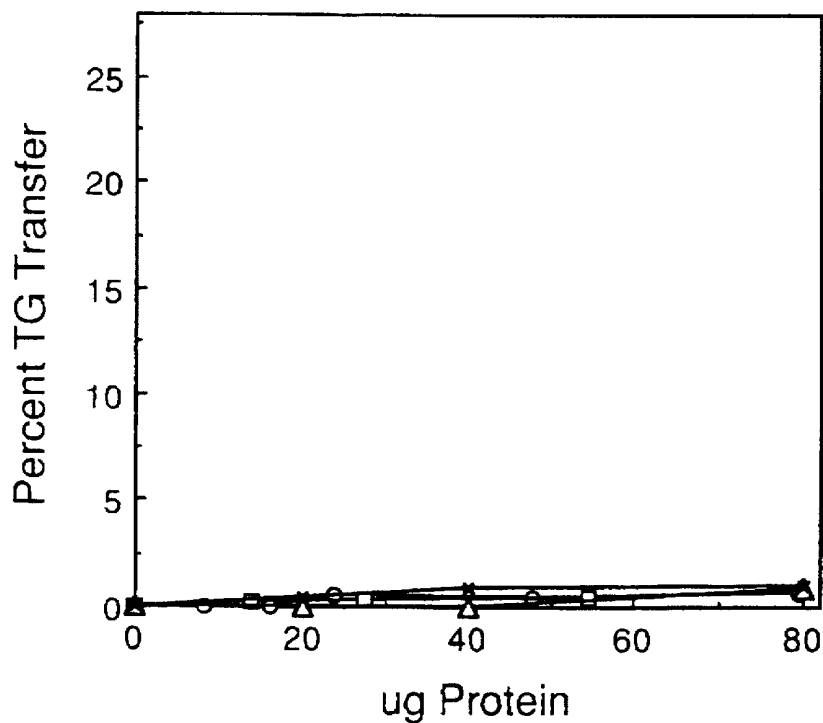
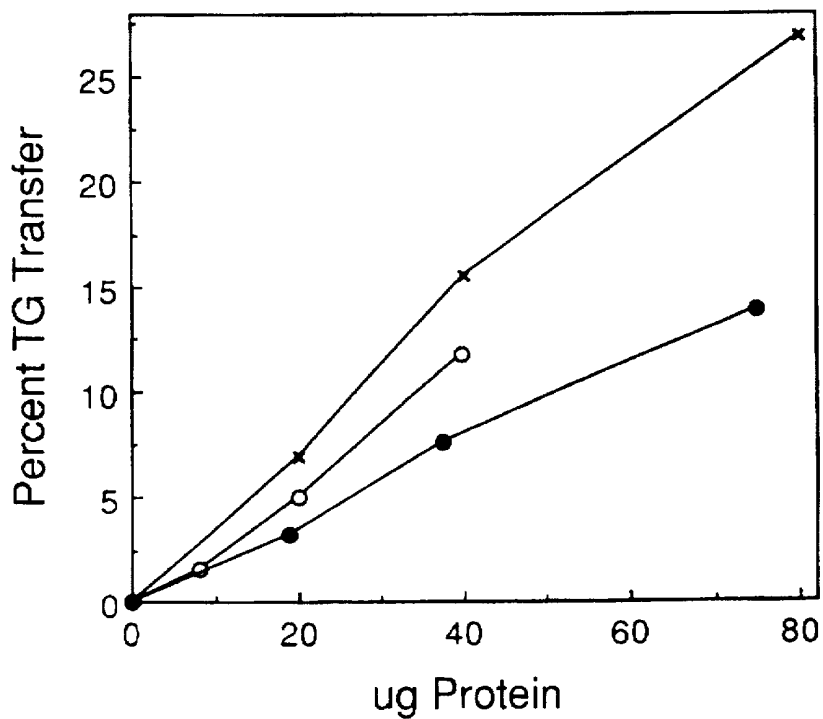


FIG. 4



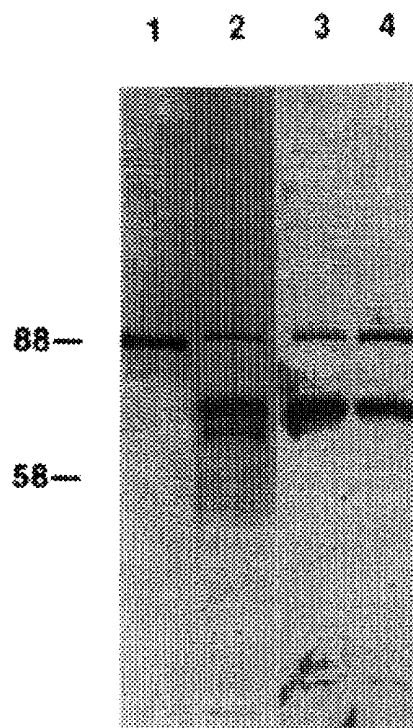


FIG. 5

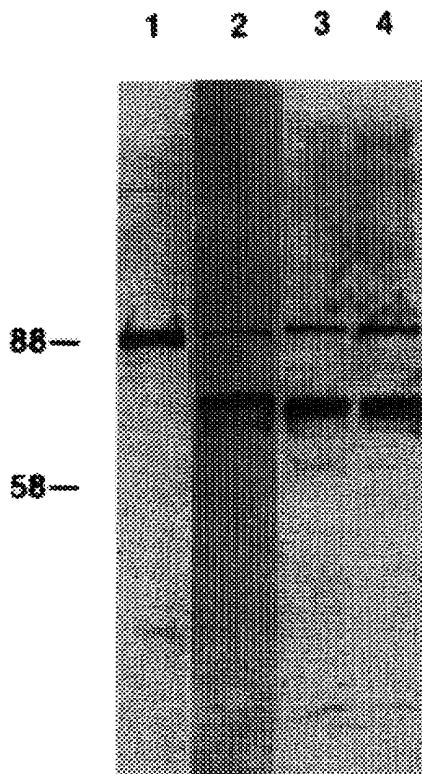


FIG. 6

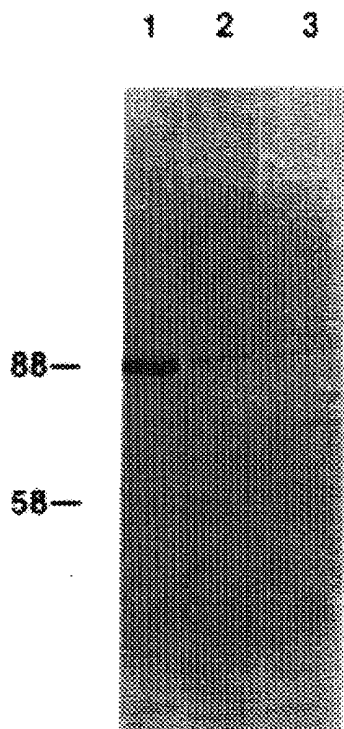


FIG. 7

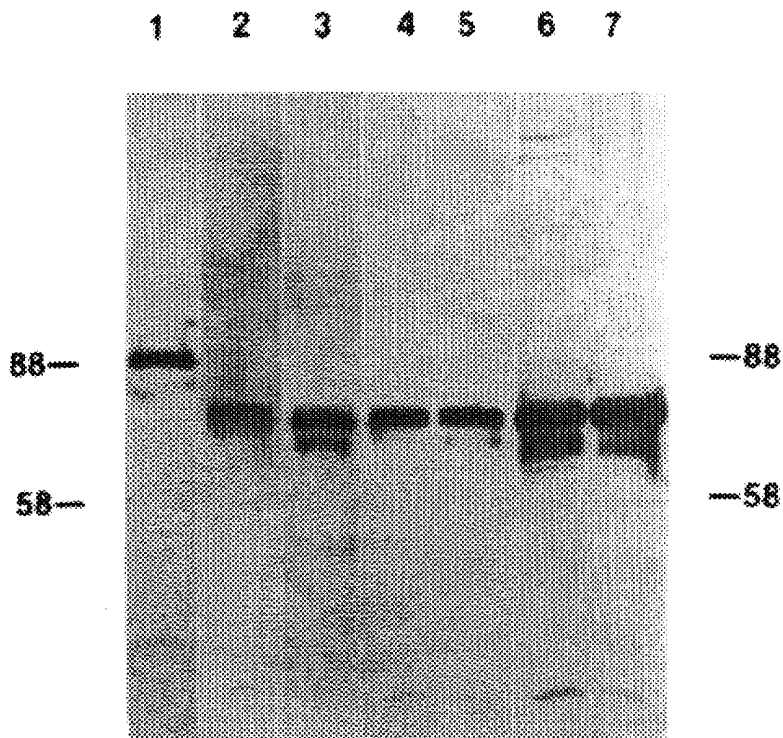


FIG. 8

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