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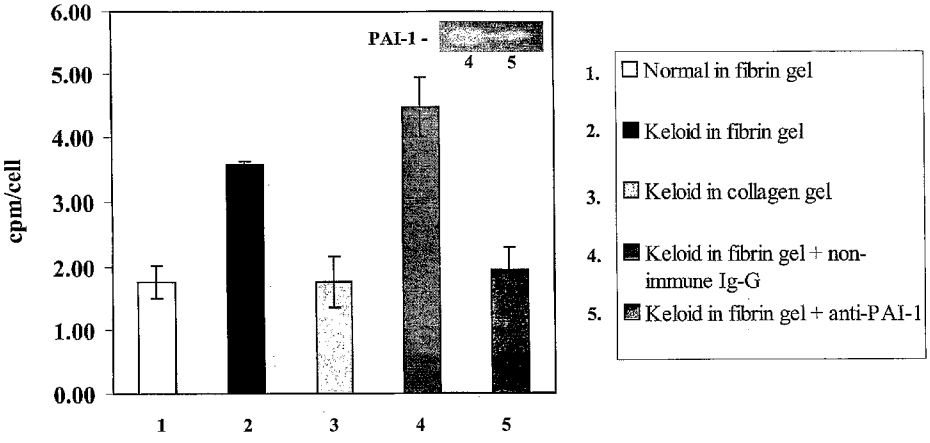
(54) Title: TREATMENT AND PREVENTION OF ABNORMAL SCAR FORMATION IN KELOIDS AND OTHER CUTANEOUS OR INTERNAL WOUNDS OR LESIONS



(57) Abstract: The present invention relates to findings that reducing the activity of Plasrninogen Activator Inhibitor-1 (PAI-1) suppresses an excessive deposition of collagen which is known as a cause for the formation of abnormal scars. These abnormal scars include but are not limited to keloids, adhesions, hypertrophic scars, skin disfiguring conditions, fibrosis, fibrocystic conditions, contractures, and scleroderma, all of which are associated with or caused by an excessive deposit of collagen in a wound healing process. Accordingly, aspects of the present invention are directed to the reduction of PAI-I activity to decrease an excessive accumulation of collagen, prevent the formation of an abnormal scar, and/or treat abnormal scars that result from an excessive accumulation of collagen. The PAI-1 activity can be reduced by PAI-1 inhibitors which include but are not limited to PAI 1 neutralizing antibodies, diketopiperazine based compounds, tetramic acid based compounds, C, Vitamin E, Mifepristone (RU486), and Spironolactone to name a few. Another *aspect of the present* invention is directed to methods of measuring PAI-I activity in a wound healing process and determining the propensity of the formation of an abnormal scar.

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