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## letters to nature

*Nature* 263, 612 - 613 (14 October 1976); doi:10.1038/263612a0**Molecular weights of antihaemophilic factor and von Willebrand factor proteins in human plasma**

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HUMAN factor VIII contains at least two biological activities, antihaemophilic factor (AHF) and von Willebrand factor (VWF). When highly purified, factor VIII is estimated to have a molecular weight of over  $1.12 \times 10^6$ , as determined by gel chromatography or sedimentation equilibrium centrifugation<sup>1-4</sup>. Some investigators<sup>2-4</sup> consider factor VIII a single glycoprotein with a number of covalently linked subunits. Since factor VIII can be dissociated in certain conditions, others<sup>5-7</sup> consider it to be a two-molecule complex consisting of a multi-subunit high molecular weight protein ( $> 10^6$ ) with VWF activity that acts as a carrier molecule for a lower molecular weight ( $2.4 \times 10^5$ ) subunit with AHF activity. A third model suggests that both AHF and VWF are high molecular weight, separate proteins consisting of disulphide linked subunits<sup>8,9</sup>.

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