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# Recombinant *Ornithodoros moubata* Saliva-derived Small Protein Complement C5 Inhibitor

National Cancer Institute

## Source

National Cancer Institute. *Recombinant Ornithodoros moubata Saliva-derived Small Protein Complement C5 Inhibitor*. NCI Thesaurus. Code C156154.

A recombinant small peptide inhibitor of the terminal complement pathway protein C5 originally derived from a protein in the saliva of the *Ornithodoros moubata* tick, with potential anti-inflammatory and cytoprotective activities. Upon administration, recombinant *Ornithodoros moubata* saliva-derived small protein complement C5 inhibitor targets and binds to a unique site on the terminal complement protein C5, which blocks C5 cleavage into the pro-inflammatory components C5a and C5b, and prevents the C5b-dependent assembly of the membrane-attack complex (MAC; C5b-9). This prevents MAC-mediated lysis and destruction of red blood cells (RBCs) in paroxysmal nocturnal hemoglobinuria (PNH) and prevents tissue destruction in various other complement-mediated inflammatory and autoimmune diseases. In addition, this C5 inhibitor targets, binds to and inhibits the activity of leukotriene B<sub>4</sub> (LTB<sub>4</sub>), thereby further preventing inflammatory-mediated cell destruction.