

<b>Name:</b>	<b>CVF-NHS</b>
<b>Catalog Number:</b>	<b>CVF-NHS</b>
<b>Sizes Available:</b>	1.0 ml/vial
<b>Concentration:</b>	>50 mg/ml (see Certificate of Analysis for exact conc.)
<b>Form:</b>	Frozen liquid
<b>Activity:</b>	<10% C3 and C5 activity versus normal human serum standard
<b>Buffer:</b>	None
<b>Preservative:</b>	None, 0.22 µm filtered
<b>Storage:</b>	-70°C or below. Minimize freeze/thaw cycles.
<b>Source:</b>	Normal human serum (shown by certified tests to be negative for HBsAg and for antibodies to HCV, HIV-1 and HIV-II).
<b>Precautions:</b>	Use normal precautions for handling human blood products.
<b>Restrictions:</b>	Not available for sale outside the USA due to international endangered species laws.
<b>Origin:</b>	Manufactured in the USA.

### General Description

CVF-NHS is generated by activating the complement system in normal human serum with cobra venom factor (CVF) (CompTech #A150) purified from the venom of *Naja naja kaouthia*. CVF from *Naja naja kaouthia* produces an enzyme that cleaves both human C3 and C5. The affinity of the *Naja naja kaouthia* CVF for C5 is so high that it primarily consumes C5 first, then C3 ((Rawal, N. and Pangburn, M.K. (2000)).

### Physical Characteristics & Structure

CVF-NHS is serum supplied as a clear, straw-colored liquid containing an activated complement system and hence no complement activity. CVF-NHS also contains CVF used for activating the complement system.

### Function

CVF-NHS is tested for C3 and C5 activity by hemolytic assays using antibody-sensitized sheep erythrocytes (CompTech #B200) and C3-depleted human serum (Cat #A314) or C5-depleted human serum (Cat #A320). The assays verify that CVF-NHS has < 10% of C3 and C5 activity or >90% consumption of C3 and C5 activity in CVF-NHS when compared to normal human serum standard.

### Assays

See Function

### Applications

CVF-NHS is a serum source which lacks complement activity due to its consumption upon activation with CVF.

### Precautions/Toxicity/Hazards

The source is human serum, therefore precautions appropriate for handling any blood-derived product must be used even though the source was shown by certified tests to be negative for HBsAg and for antibodies to HCV, HIV-1 and HIV-II.

Hazard Code: B      WGK Germany 3

MSDS available upon request.

**References**

Rawal, N. and Pangburn, M.K. (2000) Functional role of the noncatalytic subunit of complement C5 convertase. *J. Immunol.* 164:1379-1385.