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# Ranibizumab

National Cancer Institute

## Source

National Cancer Institute. *Ranibizumab*. NCI Thesaurus. Code C67562.

A second-generation, recombinant humanized IgG1 kappa monoclonal antibody fragment directed against human vascular endothelial growth factor (VEGF) alpha. Ranibizumab binds to VEGF alpha and inhibits VEGF alpha binding to its receptors, VEGFR1 and VEGFR2, thereby preventing the growth and maintenance of tumor blood vessels. The molecular weight of this agent (48 kD) is much smaller than the molecular weight of bevacizumab (MW ~149 kD), allowing complete penetration of the retina and the subretinal space following intravitreal injection. In contrast to other anti-VEGF aptamers such as pegaptanib, ranibizumab has a high specificity and affinity for all soluble human isoforms of VEGF.