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# Selumetinib

National Cancer Institute

## Source

National Cancer Institute. *Selumetinib*. NCI Thesaurus. Code C66939.

An orally active, small molecule with potential antineoplastic activity. Selumetinib is an ATP-independent inhibitor of mitogen-activated protein kinase kinase (MEK or MAPK/ERK kinase) 1 and 2. MEK 1 and 2 are dual specificity kinases that are essential mediators in the activation of the RAS/RAF/MEK/ERK pathway, are often upregulated in various cancer cells, and are drivers of diverse cellular responses, including proliferation. Inhibition of both MEK1 and 2 by selumetinib prevents the activation of MEK1/2 dependent effector proteins and transcription factors, thereby leading to an inhibition of cellular proliferation in various cancers.