Endothelial protein C receptor (EPCR) also known as activated protein C receptor (APC receptor) is a protein that in humans is encoded by the PROCR gene.

PROCR has also recently been designated CD201 (cluster of differentiation 201).

The protein encoded by this gene is a receptor for protein C that enhances its activation.

Thrombin and activated protein C (aPC) bound to the endothelial protein C receptor (EPCR) both activate protease activated receptor 1 (PAR1) generating either harmful or protective signaling respectively.

Gera et al., examined the localization of PAR-1 and EPCR and thrombin activity in Schwann cells of normal and crushed peripheral nerve and in Schwannoma cell lines. In the sciatic crush model nerves were excised 1 hour, 1, 4, and 7 days after the injury. Schwannoma cell lines produced high levels of prothrombin which is converted to active thrombin and expressed both EPCR and PAR-1 which co-localized. In the injured sciatic nerve thrombin levels were elevated as early as 1 hour after injury, reached their peak 1 day after injury which was significantly higher (24.4 ±4.1 mU/ml) compared to contralateral uninjured nerves (2.6±7 mU/ml, t-test $p<0.001$) and declined linearly reaching baseline levels by day 7.

EPCR was found to be located at the microvilli of Schwann cells at the node of Ranvier and in cytoplasm surrounding the nucleus. Four days after sciatic injury, EPCR levels increased significantly (57785±16602AU versus 4790±1294AU in the contralateral uninjured nerves, $p<0.001$ by t-test) mainly distal to the site of injury, where axon degeneration is followed by proliferation of Schwann cells which are diffusely stained for EPCR. EPCR seems to be located to cytoplasmic component of Schwann cells and not to compact myelin component, and is highly increased following injury [1)].

1)
Gera O, Shavit-Stein E, Bushi D, Harnof S, Shimon MB, Weiss R, Golderman V, Dori A, Maggio N, Finegold K, Chapman J. Thrombin and Protein C Pathway in Peripheral Nerve Schwann Cells. Neuroscience. 2016 Oct 19. pii: S0306-4522(16)30574-7. doi: 10.1016/j.neuroscience.2016.10.034. [Epub ahead of print] PubMed PMID: 27771530.