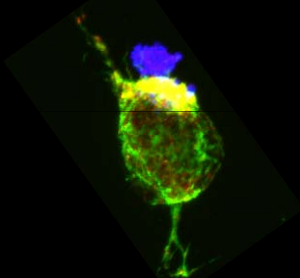
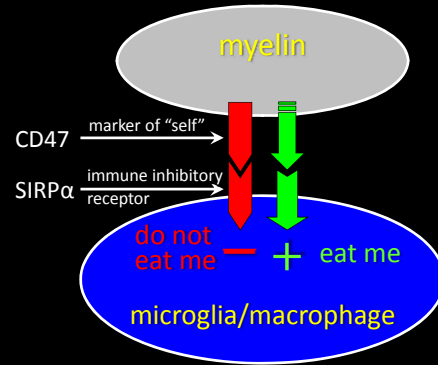


The regulation of myelin phagocytosis by immune inhibitory receptor SIRP $\alpha$  and its ligand CD47

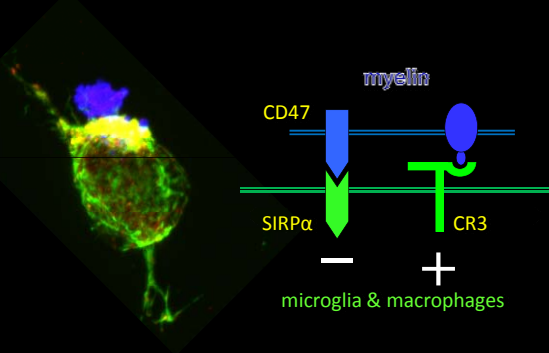


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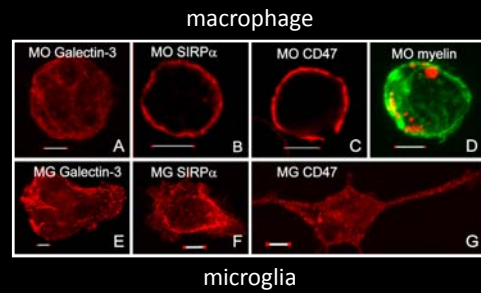
Immune inhibitory receptor SIRP $\alpha$  down-regulates phagocytosis after binding CD47



Does myelin inhibit its own phagocytosis through CD47-SIRP $\alpha$  interactions ?

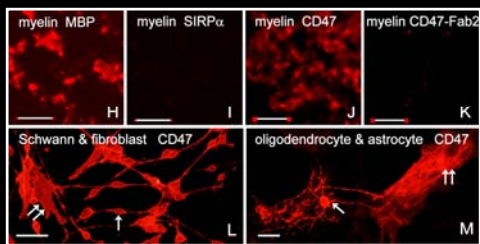


Macrophages and Microglia express SIRP $\alpha$  and CD47



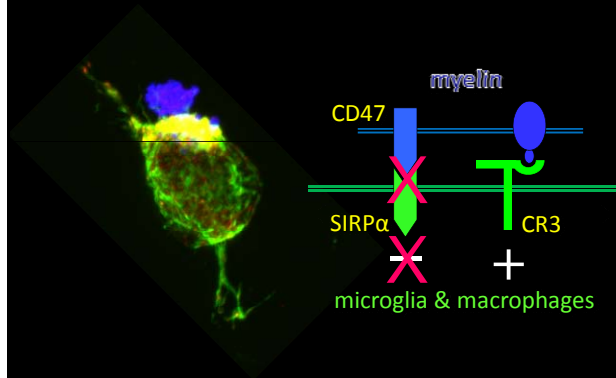
Gitik, Liraz-Zaltsman, Oldenberg, Reichert & Rotshenker, *J. Neuroinflammation*, 2011

CD47 but not SIRP $\alpha$  is expressed on Myelin, Schwann cells & oligodendrocytes

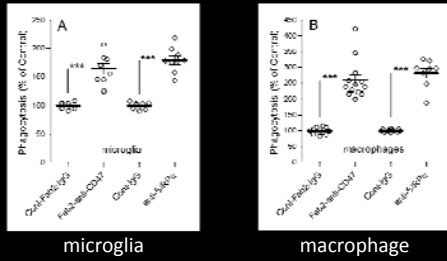


Gitik, Liraz-Zaltsman, Oldenberg, Reichert & Rotshenker, *J. Neuroinflammation*, 2011

Anti-CD47 and anti-SIRP $\alpha$  function blocking mAbs should augment myelin phagocytosis

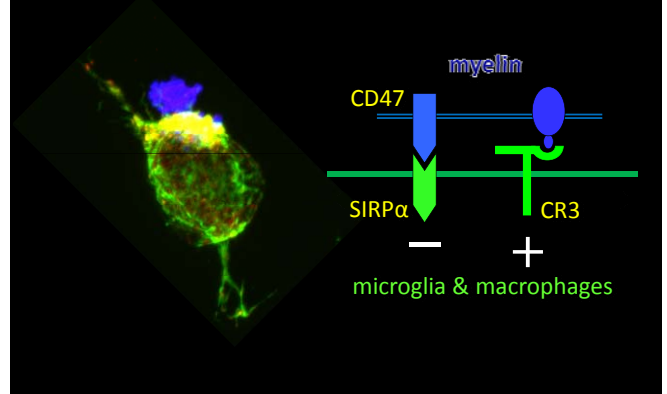


Anti-CD47 and anti-SIRP $\alpha$  function blocking mAbs augment the phagocytosis of degenerated-myelin

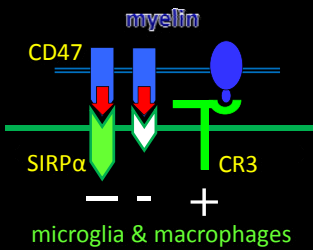
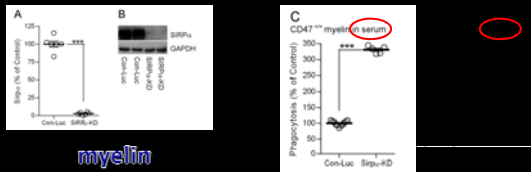


Gitik, Liraz-Zaltsman, Oldenborg, Reichert & Rotshenker, *J. Neuroinflammation*, 2011

Myelin phagocytosis should be augmented after reducing SIRP $\alpha$  expression



CD47 and serum induce SIRP $\alpha$ -dependent down-regulation of myelin phagocytosis



Gitik, Liraz-Zaltsman, Oldenborg, Reichert & Rotshenker, *J. Neuroinflammation*, 2011

SIRP $\alpha$  down-regulates myelin phagocytosis after binding CD47 on myelin

