Sterile alpha and HEAT/Armadillo motif

Sterile alpha and HEAT/Armadillo motif (SARM), a member of the Toll-interleukin-1 receptor (TIR) domain-containing adaptor family, is primarily expressed in the central nervous system. However, the role of SARM in glioma is still undefined. Zhou et al. examined the function of SARM in microglial polarization and glioma progression. The results showed that forced the expression of SARM in GL261 glioma cells inhibited tumor growth, and reduced interleukin (IL)-6 secretion in conditioned media. Silencing of SARM in microglia cells inhibited IL-4-induced M2 polarization and enhanced lipopolysaccharide-induced M1 microglial polarization. Furthermore, overexpression of SARM increased the migration of microglia cells upon TGFβ stimulation. These data suggested that SARM is involved in neuroinflammation and microglia activation. This study provides novel insight into the mechanisms of microglia polarization [1].

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Zhou C, Li T, Dong Q, Liang H, Xu L. SARM suppresses glioma progression in GL261 glioma cells and regulates microglial polarization. Cell Biol Int. 2022 Aug 16. doi: 10.1002/cbin.11881. Epub ahead of print. PMID: 35971755.