CD155 (cluster of differentiation 155) also known as the poliovirus receptor is a protein that in humans is encoded by the PVR gene.

Recent studies demonstrated that CD155 plays an important role in anti-tumor immune responses. However, its role in glioma remains unclear.

Liu et al. identified CD155 as a promising immune target in glioma. CD155 expression was significantly highly expressed in glioblastoma but not in normal brain tissue. Subsequent analysis based on genetic and clinical data from 1173 glioma patients in Rembrandt and TCGA dataset suggested that CD155 related genes of immune response were mainly positively correlated with CD155 expression. CD155 expression was positively correlated with immune-related metagenes STAT1, HCK, LCK, and MHC I but negatively associated with IgG. CD155 expression was positively correlated with biomarker gene expression of infiltrating immune cells, suggested that high CD155 expression in gliomas tend to have more infiltrating immune cells compared with gliomas with low CD155 expression. Pearson correlation analysis showed that CD155 is associated with CD96, CD226, Nectin4, PD-L1, B7-H2, NR2F6 and GITR, implying the potential synergistic effects of these checkpoint proteins. These findings implied that CD155 is a promising immunotherapy target, combined with existing immune checkpoint blockade therapies for glioma [1].

1)
Liu F, Huang J, Xiong Y, Li S, Liu Z. Large-scale analysis reveals the specific clinical and immune features of CD155 in glioma. Aging (Albany NY). 2019 Aug 4;11. doi: 10.18632/aging.102131. [Epub ahead of print] PubMed PMID: 31377744.