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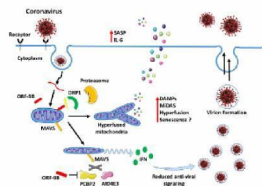


Figure 1. Modulation of mitochondrial dynamics upon CoV infection. ORF4b, a viral factor of severe acute respiratory syndrome coronavirus (SARS-CoV), localizes to mitochondria and causes mitochondrial elongation by triggering depolymerization and subsequent degradation of DRP1, a mitochondrial protein. Further, acting on mitochondrial ORF4b targets the mitochondrial associated adaptor protein mTOR signaling pathway to activate mTOR, a signaling protein in PI3K/AKT/mTOR pathway. In figure (A) DRP1 is targeted for degradation by mTOR. This reduces level of DRP1 and leads to enhanced mitochondrial elongation. However, these changes may later trigger cellular senescence and contribute to enhance the inflammatory response via the senescence associated secretory phenotype (SASP).