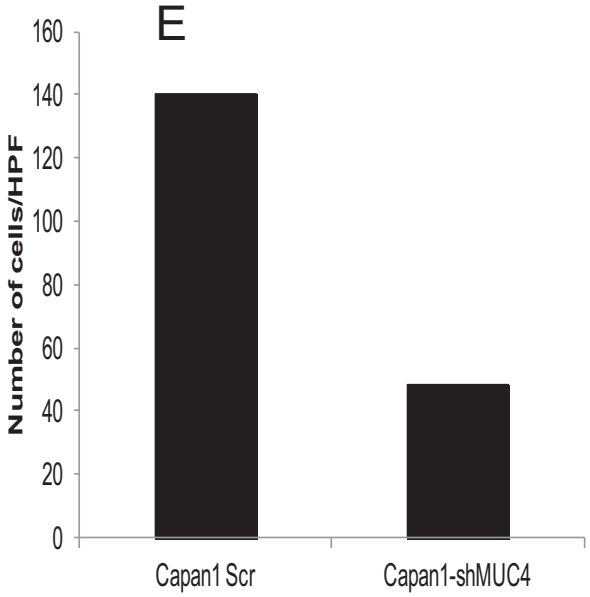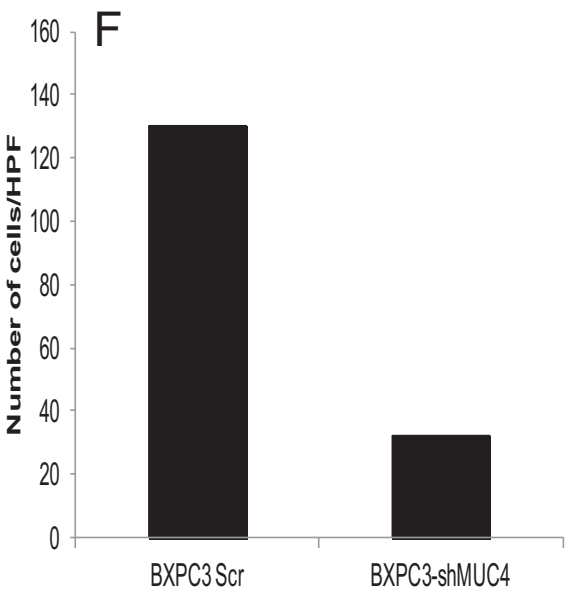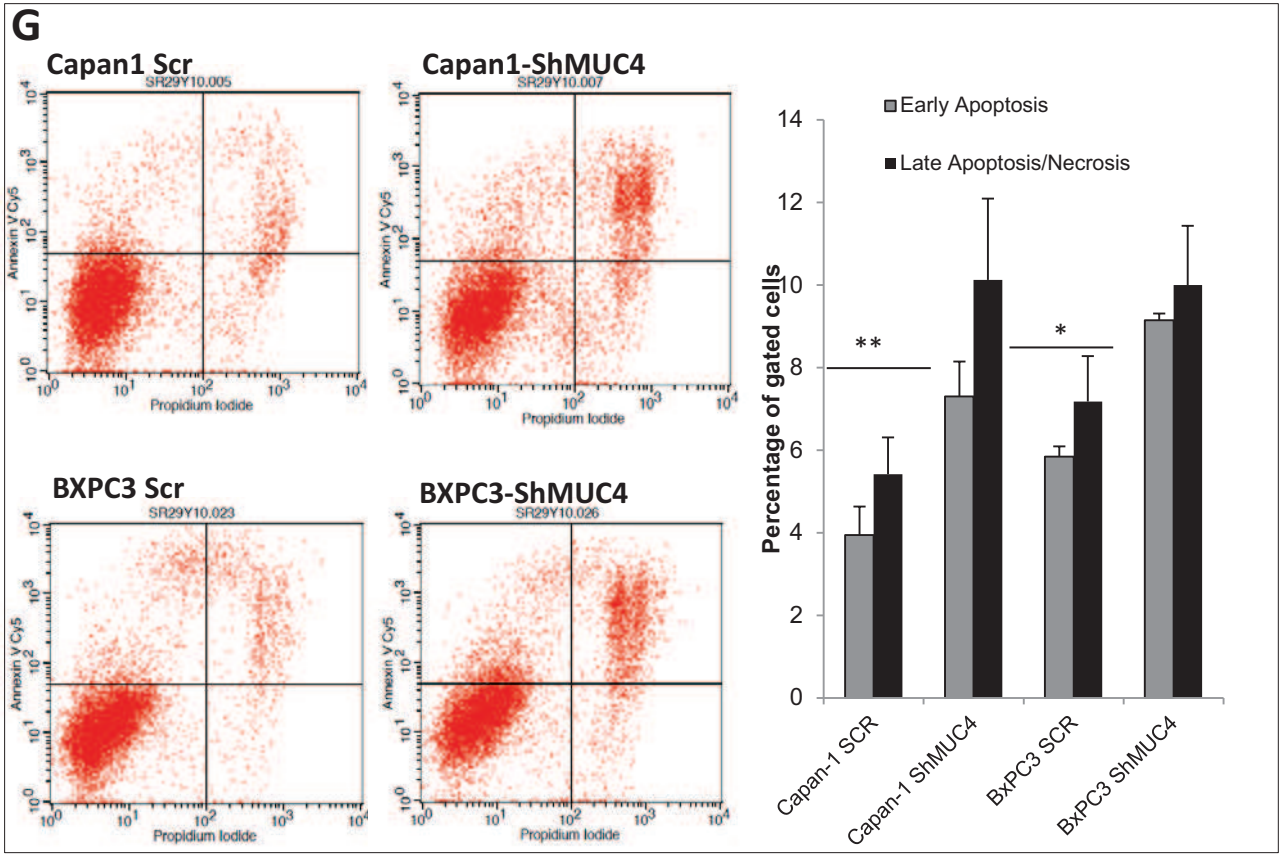Supplimentory Fig.1