

Selection	Description
Trigger	Single-muon $p_T > 24/27/24$ GeV Single-electron $p_T > 27/32/32$ GeV
Sign and flavor of leptons	e^\pm, μ^\pm
Loose lepton count	=1
Tight lepton count	=1
Tight lepton p_T	$p_T > 40$ GeV
AK8 jet threshold	$p_T > 250$ GeV
AK8 jet count	≥ 2
H \rightarrow $b\bar{b}$ candidate	max $X \rightarrow b\bar{b}$ score AK8 jet
V \rightarrow qq candidate	max $X \rightarrow qq$ score AK8 jet
AK4 jet count for VBS	≥ 2
VBS jet candidates	max momentum, opposite η sign
AK4 jet for b tagging criteria	$p_T > 20$ GeV, $ \eta < 2.5$
Tight b tagged jet count	=0
Event kinematics	$S_T > 1000$ GeV