

Selection	Description
Trigger	Single-muon $p_T > 24/27/24$ GeV Single-electron $p_T > 27/32/32$ GeV
Sign and flavor of leptons	$e^+e^-, \mu^+\mu^-, \mu^\pm e^\mp$
Loose lepton count	=2
Tight lepton count	=2
Lepton p_T	$p_T > 26/29/26$ GeV (muons) $p_T > 29/34/34$ GeV (electrons)
Tight lepton separation	$\Delta R > 0.5$
Z veto	$m_{\ell\ell} < 86$ or > 96 GeV
AK8 jet threshold	$p_T > 250$ GeV
AK8 jet count	≥ 1
H \rightarrow $b\bar{b}$ candidate	max $X \rightarrow b\bar{b}$ score AK8 jet $70 < m_{PN} < 160$ GeV
AK4 jet count for VBS	≥ 2
VBS jet candidates	max $ \Delta\eta_{jj} $
AK4 jet for b tagging criteria	$p_T > 20$ GeV, $ \eta < 2.5$
Medium b tagged jet count	=0
Missing transverse momentum	$p_T^{\text{miss}} > 100$ GeV
Event kinematics	$S_T > 500$ GeV