

# How to think about NaOH vs. NaOEt vs. LDA in enolate reactions

NaOH and NaOEt are relatively weak bases → cannot quantitatively deprotonate aldehydes, ketones or esters

$\text{H}_2\text{O}$        $\text{EtOH}$   
└──────────┘  
 $\text{p}K_a \approx 16$

→ can quantitatively deprotonate  $\beta$ -dicarbonyl compounds

LDA is a wicked strong base → can quantitatively deprotonate aldehydes, ketones or esters as well as  $\beta$ -dicarbonyl compounds

H-LDA  
 $\text{p}K_a \approx 40$

→ Not a nucleophile due to sterics