6. This question is about the synthesis the new wonder-drug 'Rimonabant'

In September 2004 the drug company Sanofi-Synthelabo announced a new compound to help fight both obesity and smoking. The structure of the drug *rimonabant* (to be marketed under the trade name Acomplia) is given below together with an outline of its synthesis.

Draw the structures for the starting materials chlorobenzene and propanoyl chloride, and compounds $\mathbf{A} - \mathbf{F}$.



chlorobenzene + propanoyl chloride

$$\mathbf{B} + \mathbf{C}_{2}\mathbf{H}_{5}\mathbf{O} \longrightarrow \mathbf{C} + \mathbf{L}i^{\oplus}\mathbf{C}_{2}\mathbf{H}_{5}\mathbf{O}^{\ominus}$$

$$\mathbf{C} \quad + \quad \stackrel{\mathsf{H}}{\longrightarrow} \quad \mathbf{D} \quad + \quad 2\mathsf{H}_2\mathsf{O}$$

$$\mathbf{E}$$
 + SOCl₂ \longrightarrow \mathbf{F} + SO₂ + HCl