$$\mathcal{L}\left\{\delta(t-t_0)\right\} = \int\limits_0^\infty e^{-st}\delta(t-t_0)dt = e^{-st_0}$$
$$\delta(t-t_0) \Leftrightarrow e^{-st_0}$$
$$\delta(t) \Leftrightarrow 1$$