PROOF OF FORMULA 3.194.5

$$
\int_{0}^{a} \frac{x^{\mu-1} d x}{1+b x}=\frac{a^{\mu}}{\mu}{ }_{2} F_{1}[1, \mu ; \mu+1 ;-a b]
$$

This is the special case $\nu=1$ of 3.194.1.

