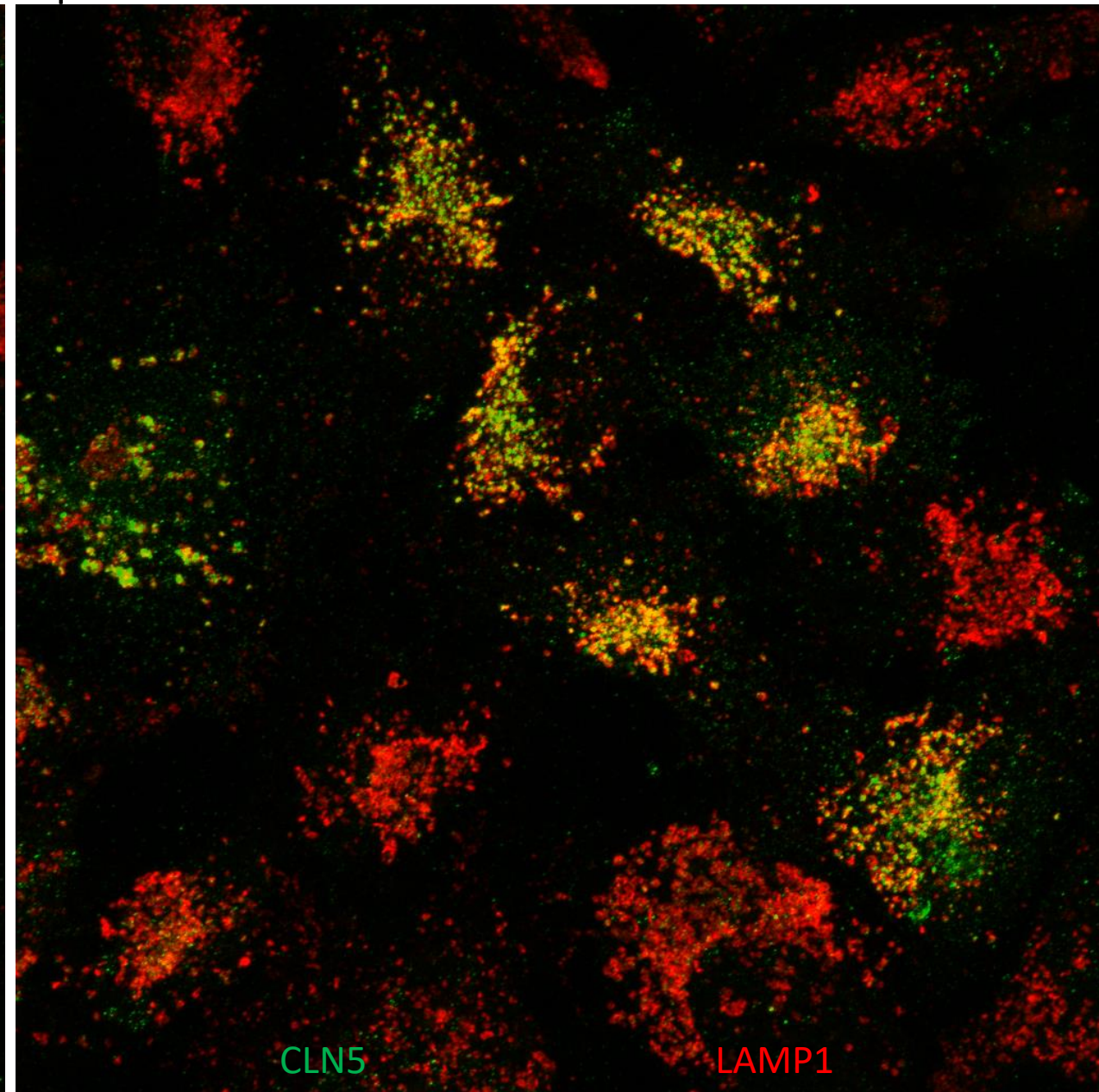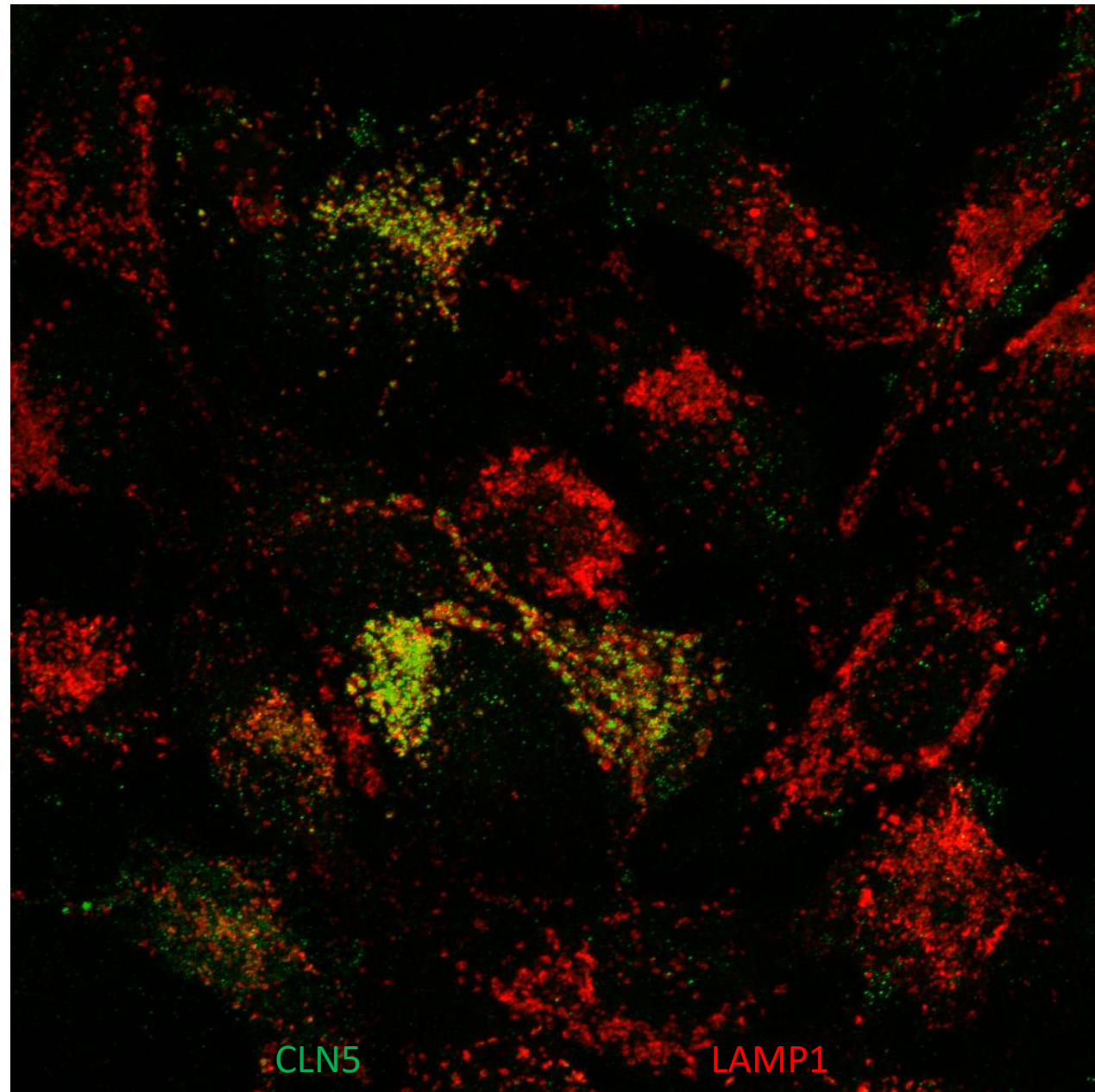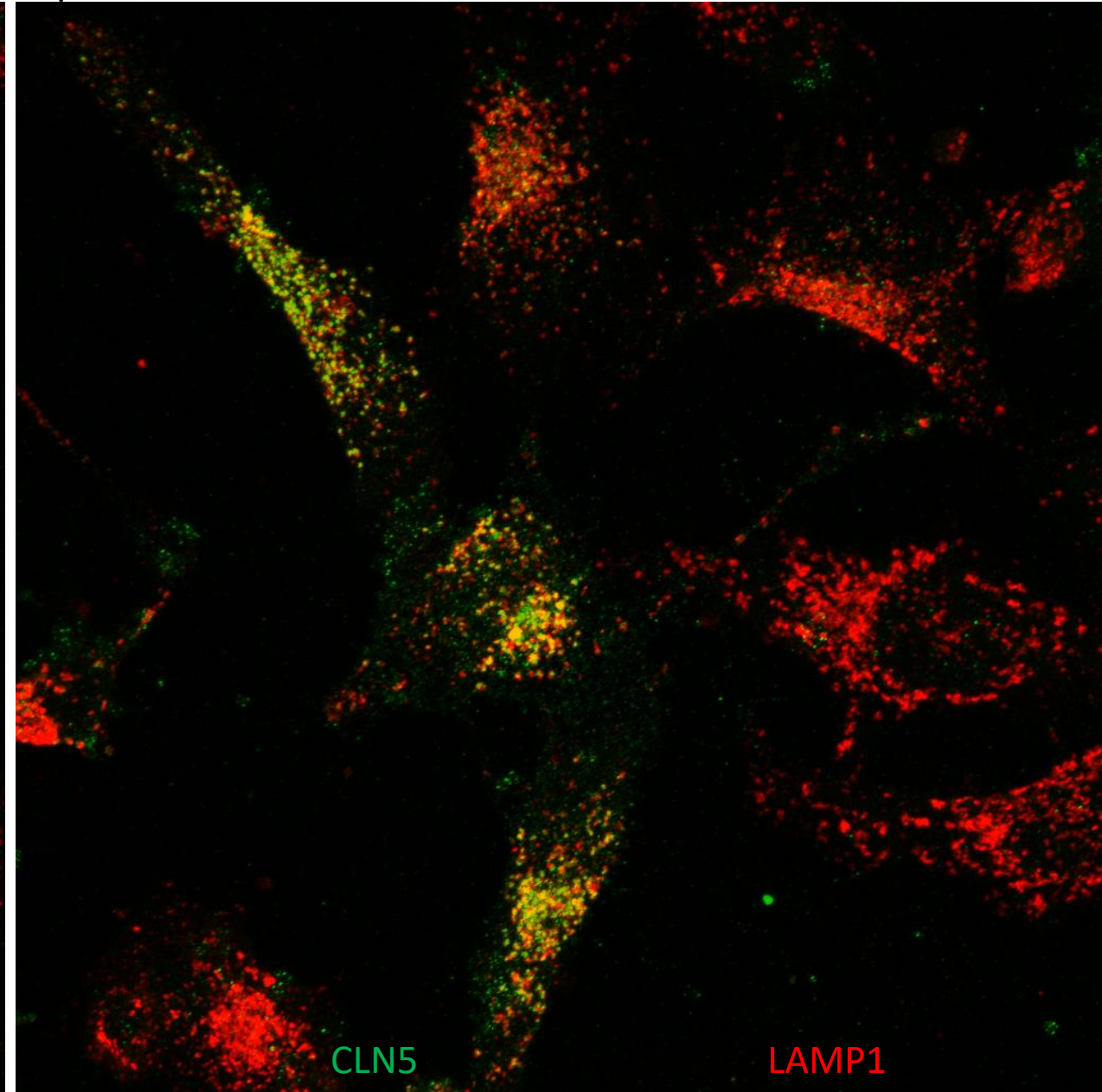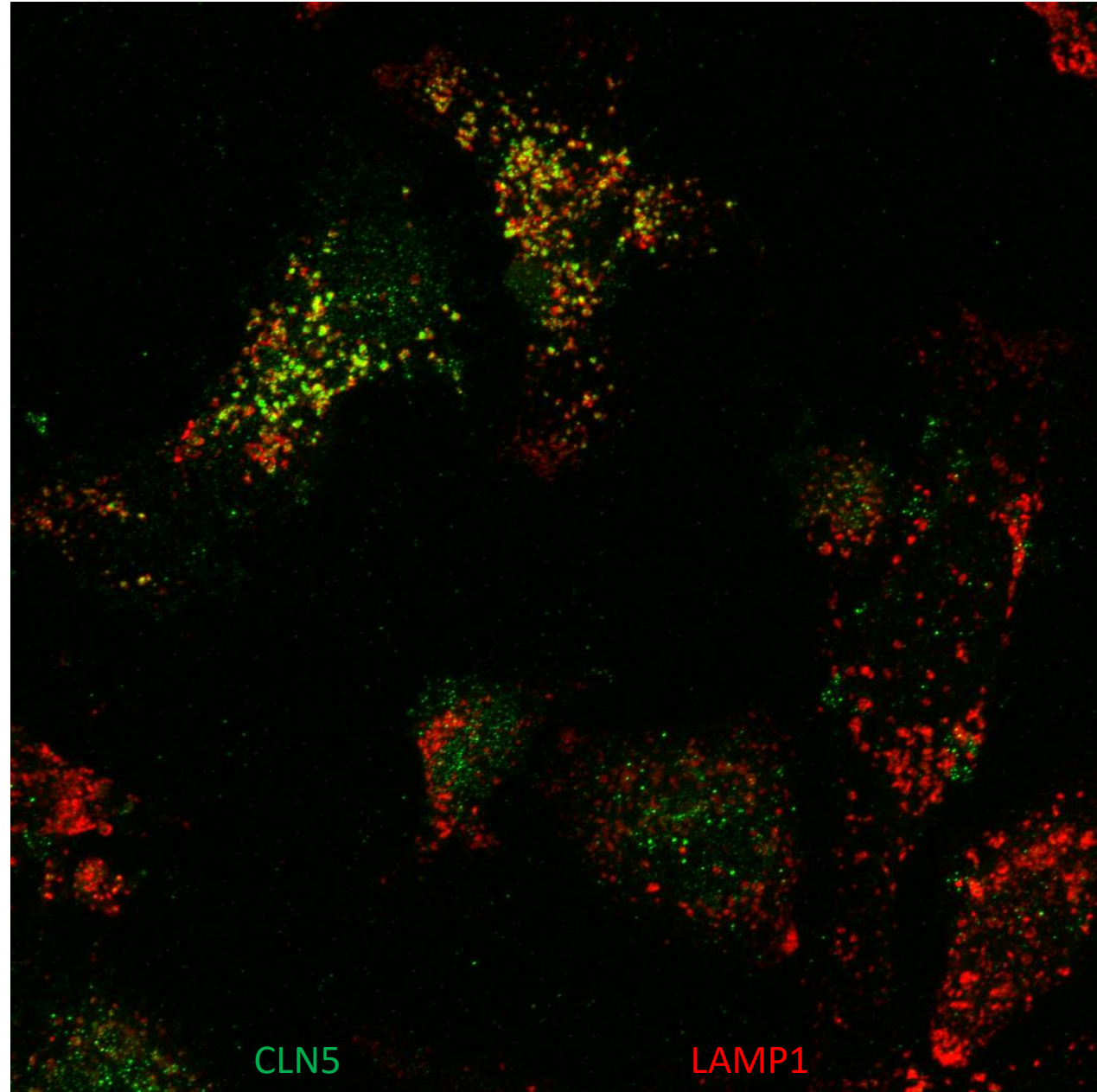S1: HeLa cell images used for colocalization analysis shown in Fig. 3 and 4.

WT CLN5 expression and co-localization with Lysosomal marker Lamp1
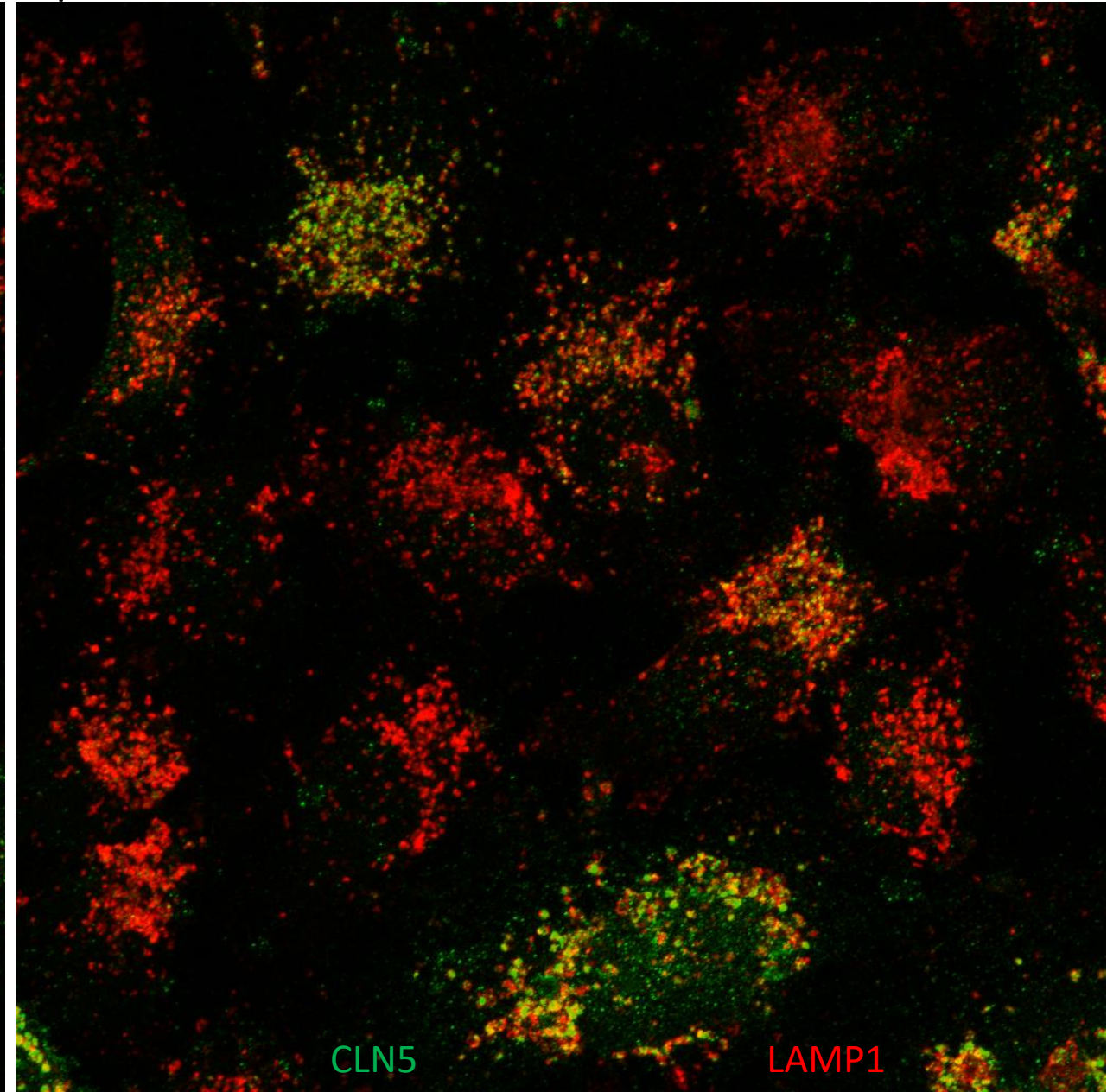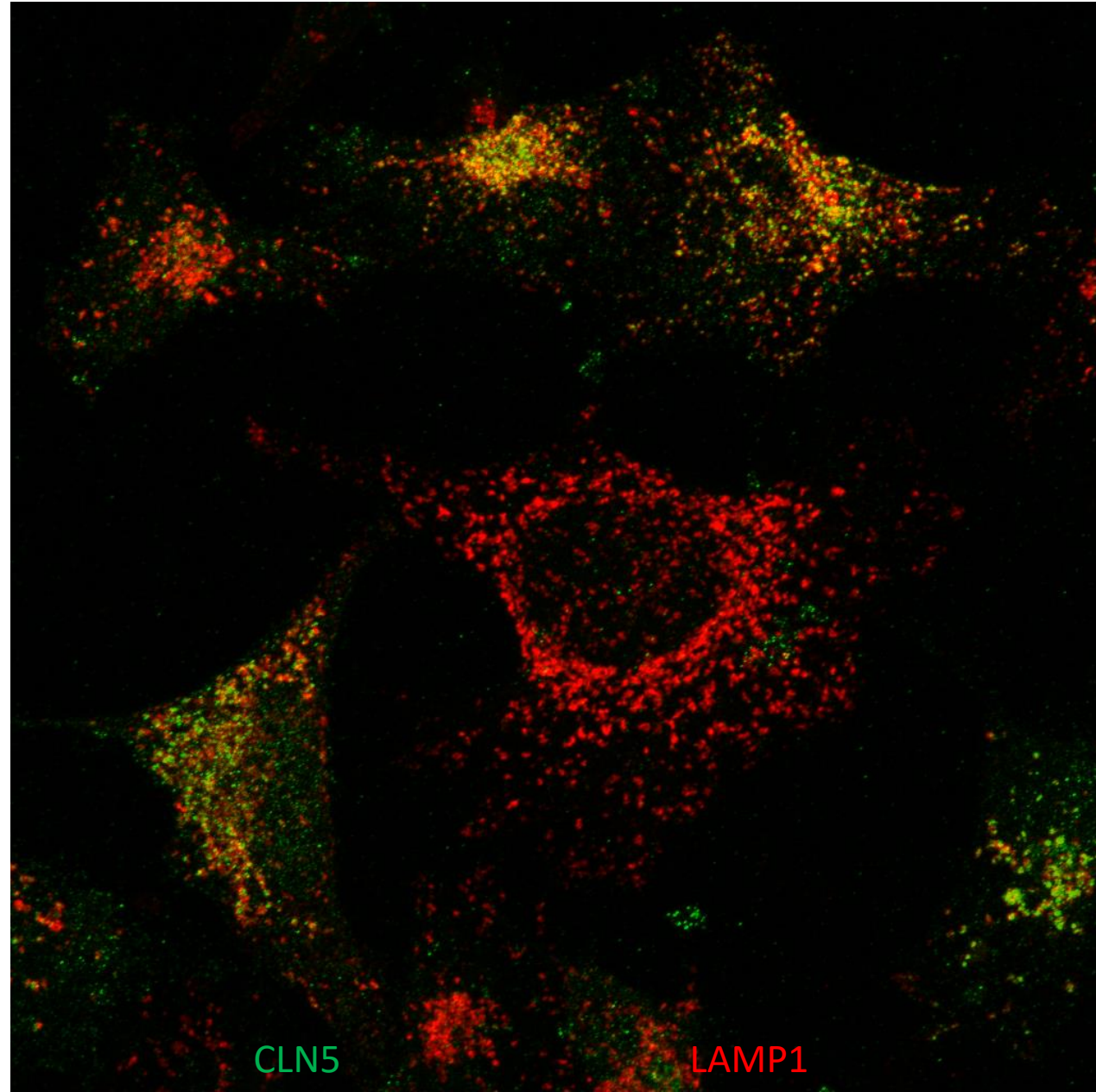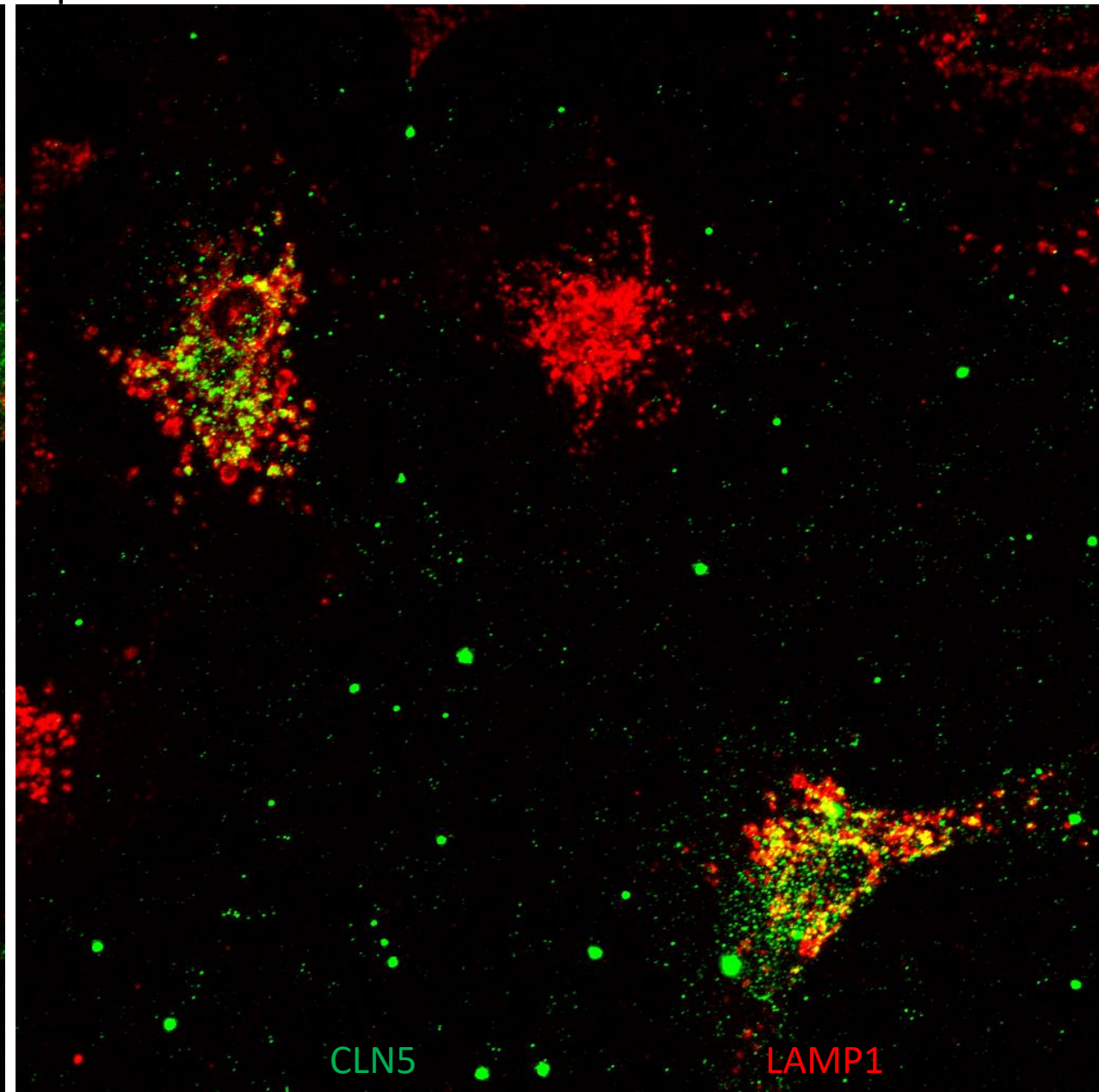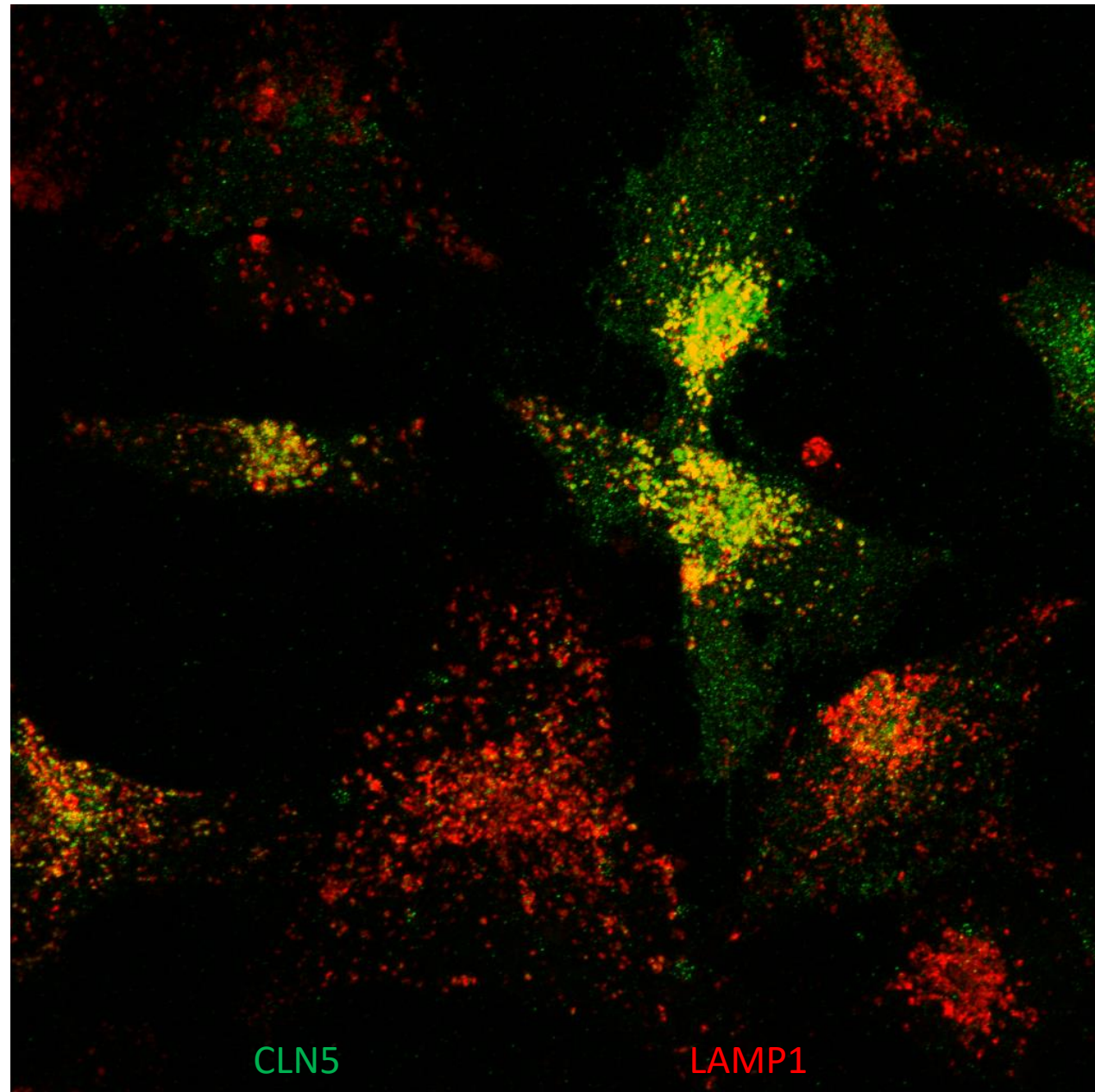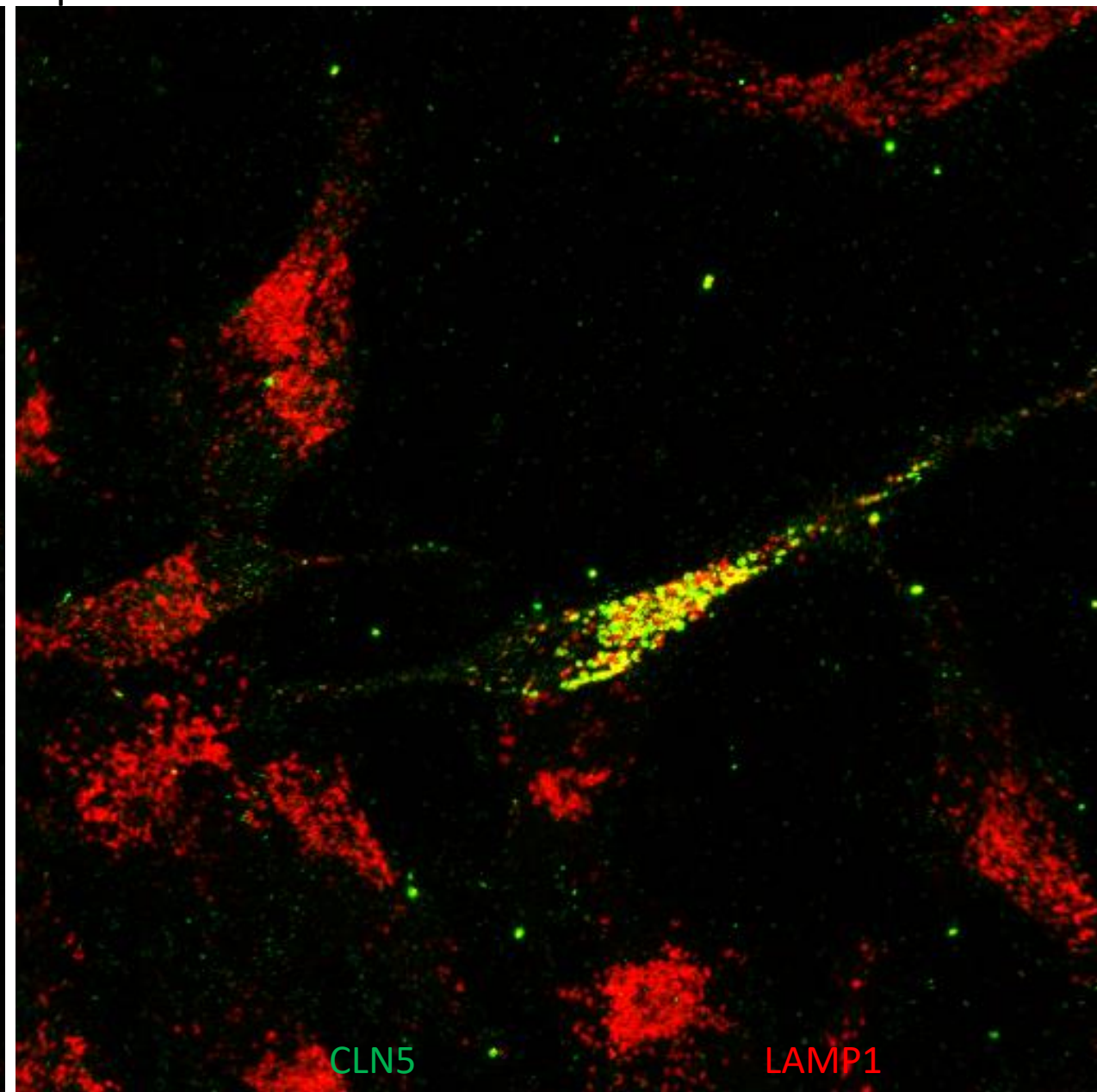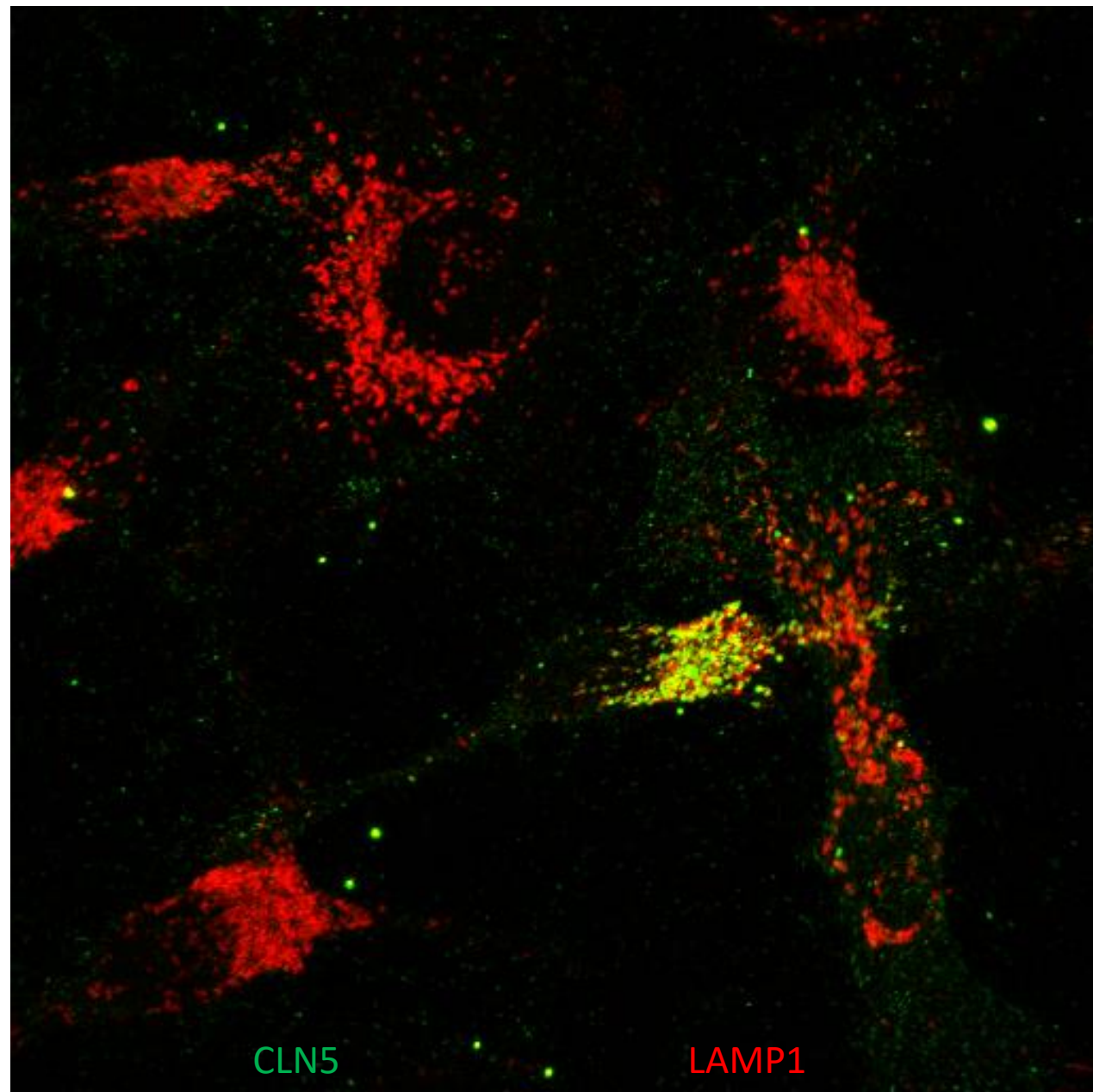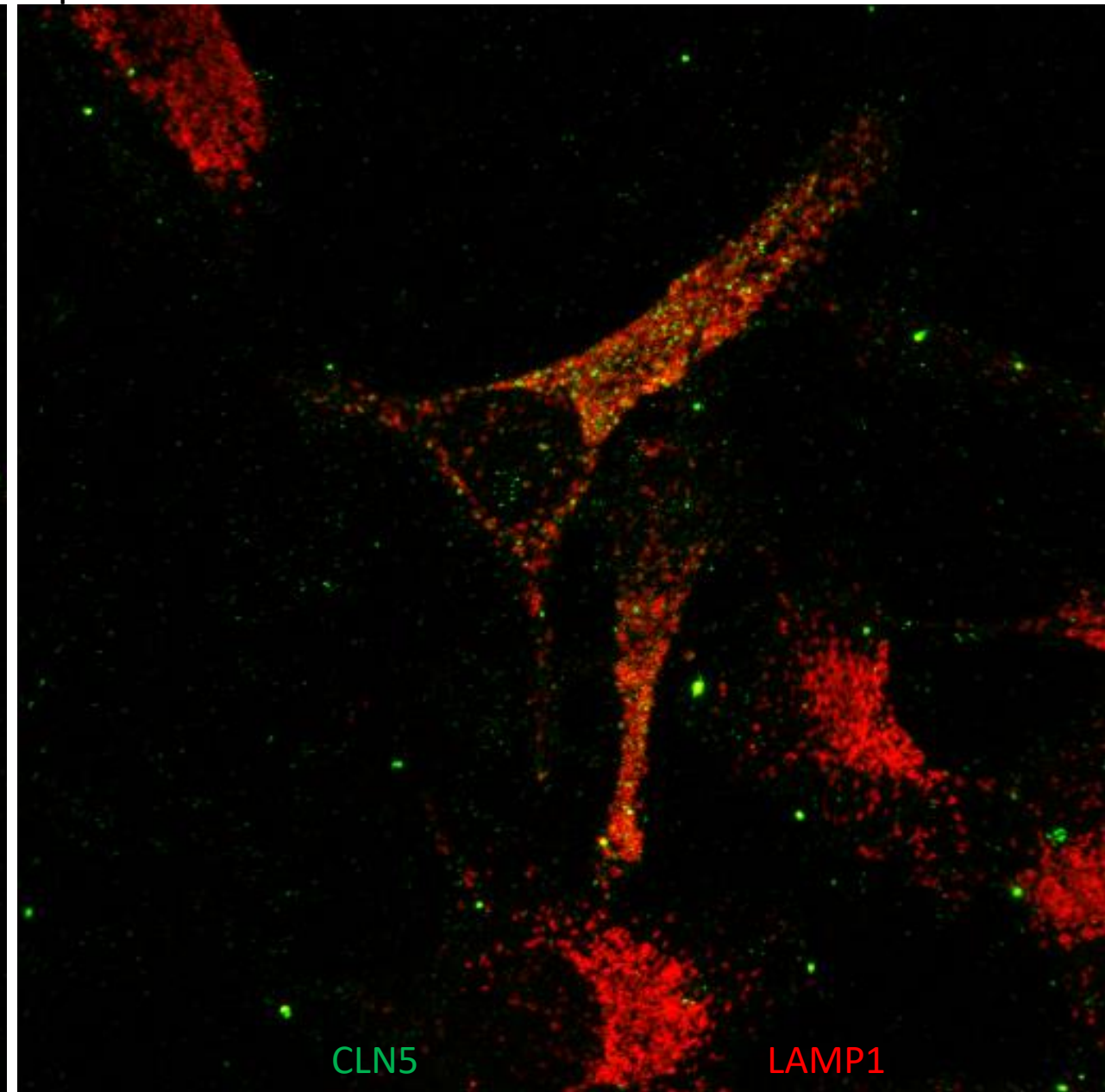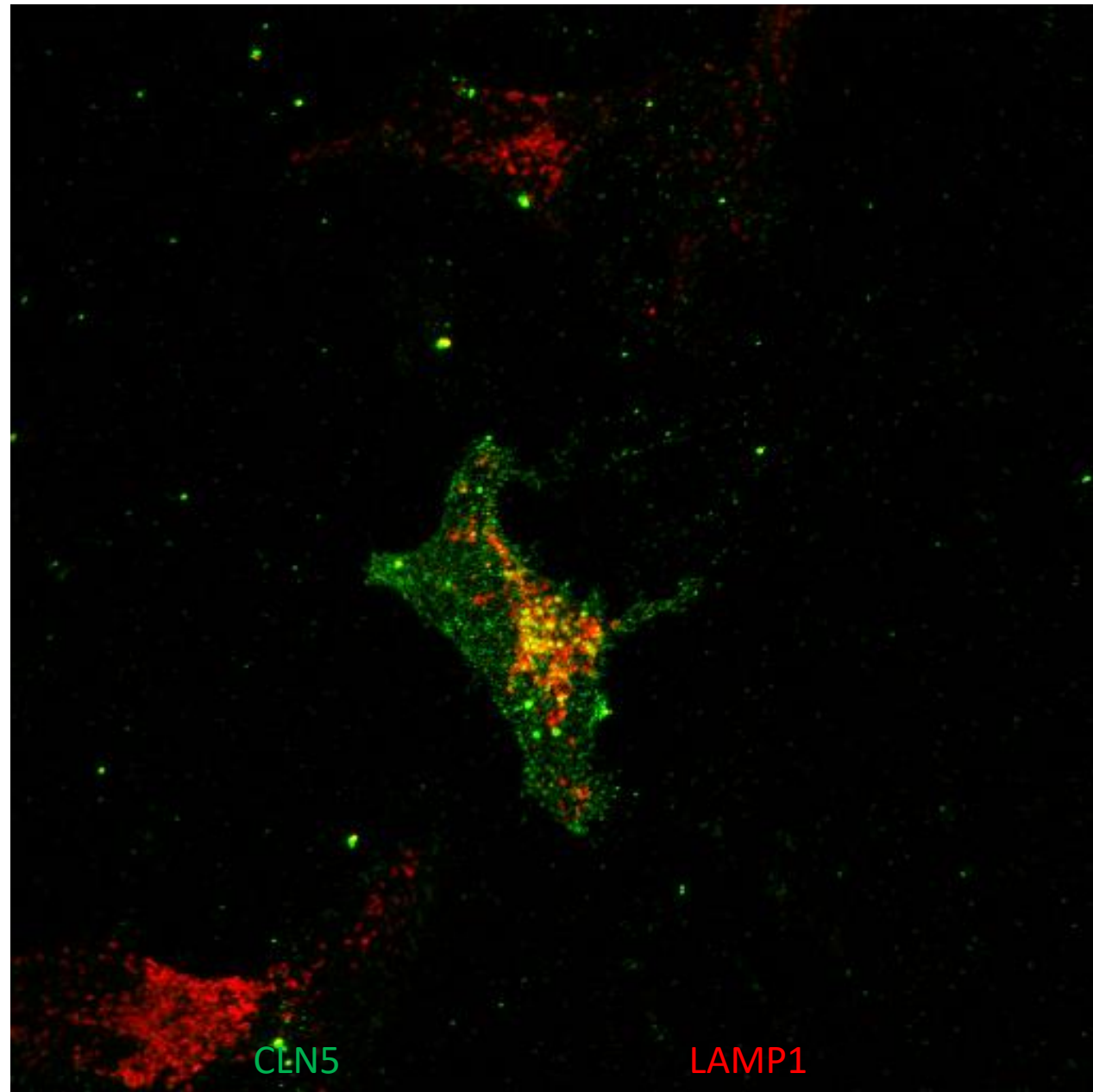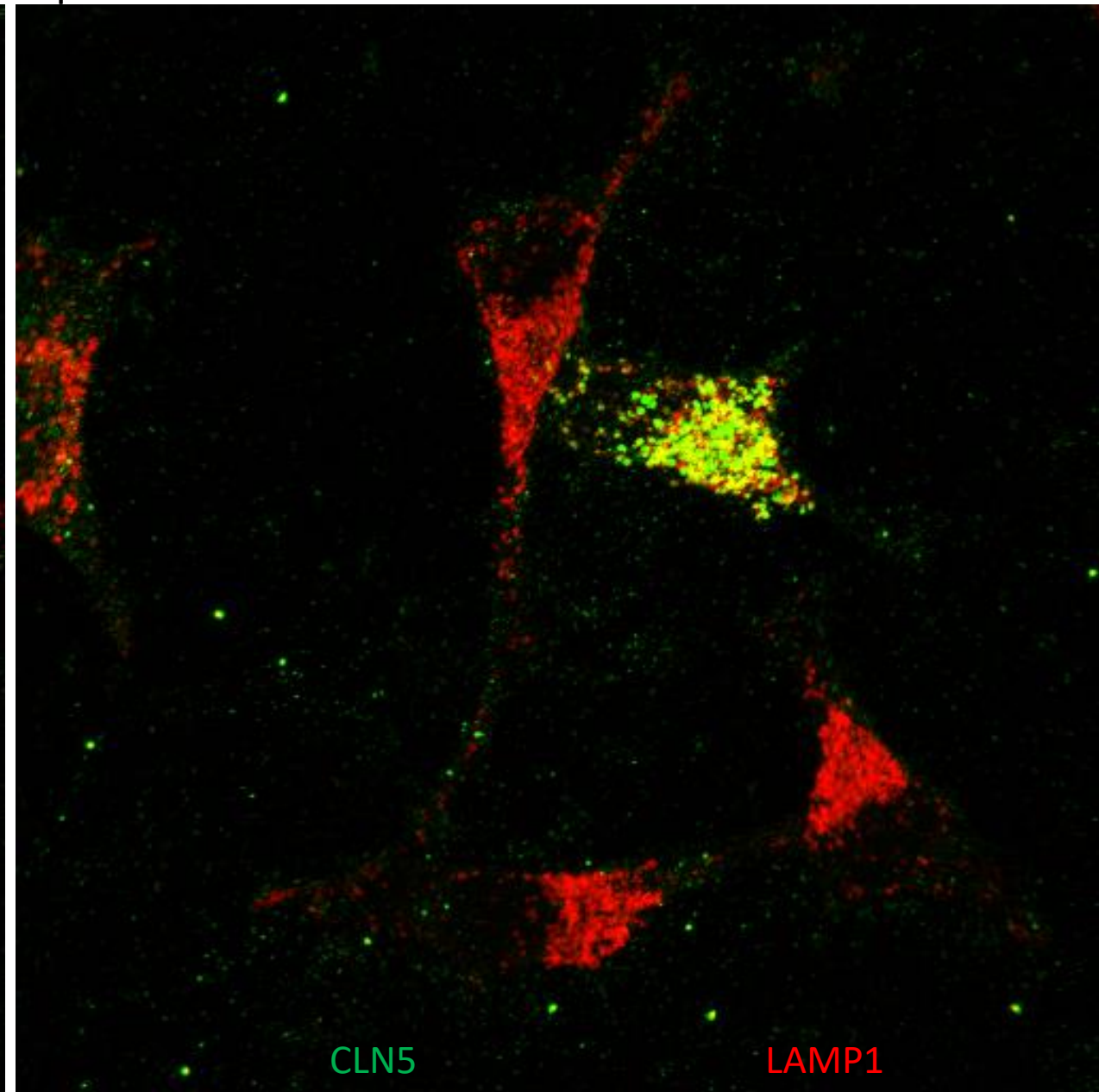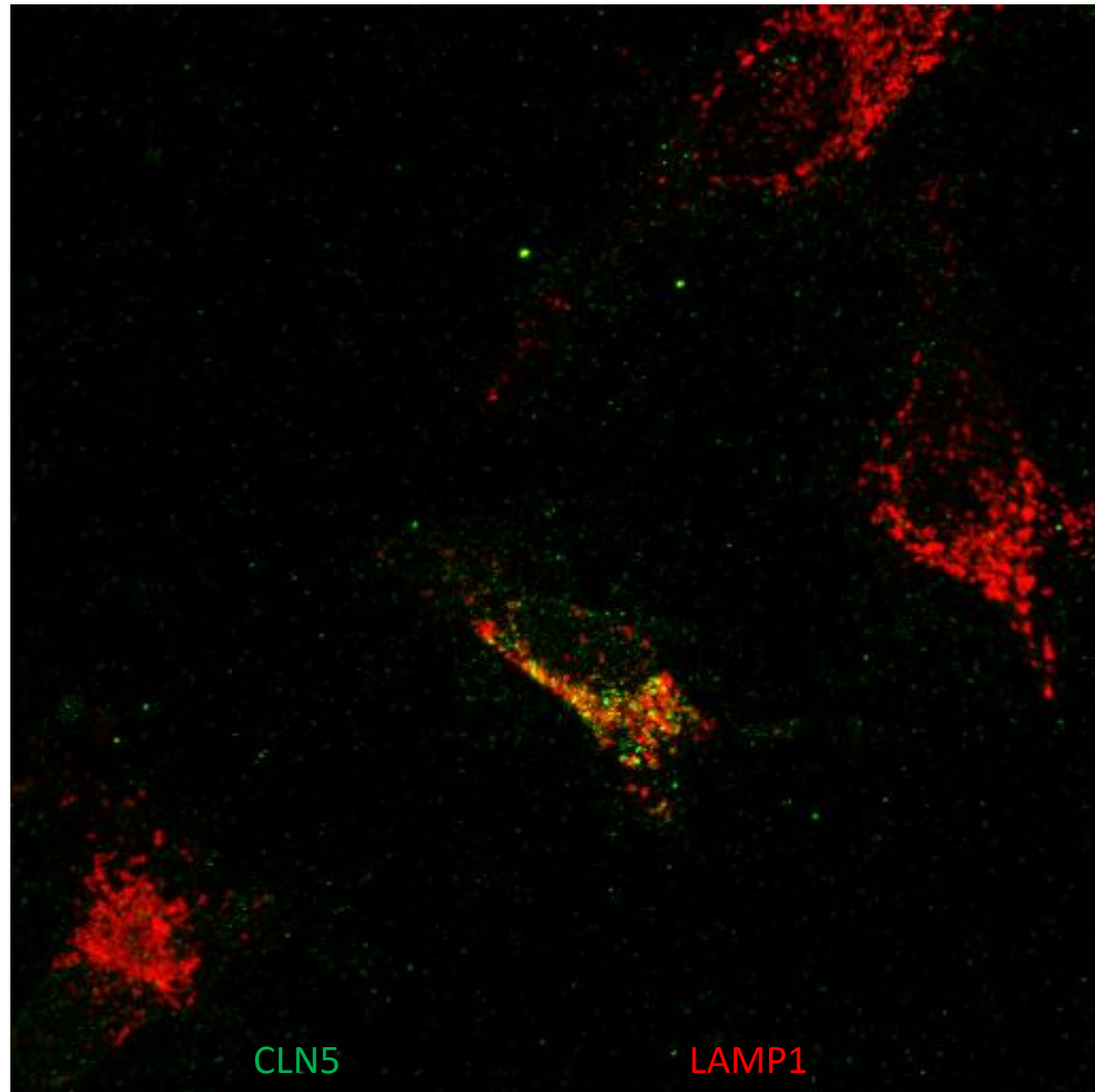
WT CLN5 expression

CLN5　　　LAMP1　　　　CLN5　　　LAMP1

WT CLN5 expression

WT CLN5 expression

CLN5   LAMP1   CLN5   LAMP1

WT CLN5 expression

CLN5   LAMP1   CLN5   LAMP1

WT CLN5 expression

CLN5   LAMP1   CLN5   LAMP1

WT CLN5 expression

CLN5   LAMP1

CLN5   LAMP1

WT CLN5 expression

CLN5   LAMP1   CLN5   LAMP1

WT CLN5 expression
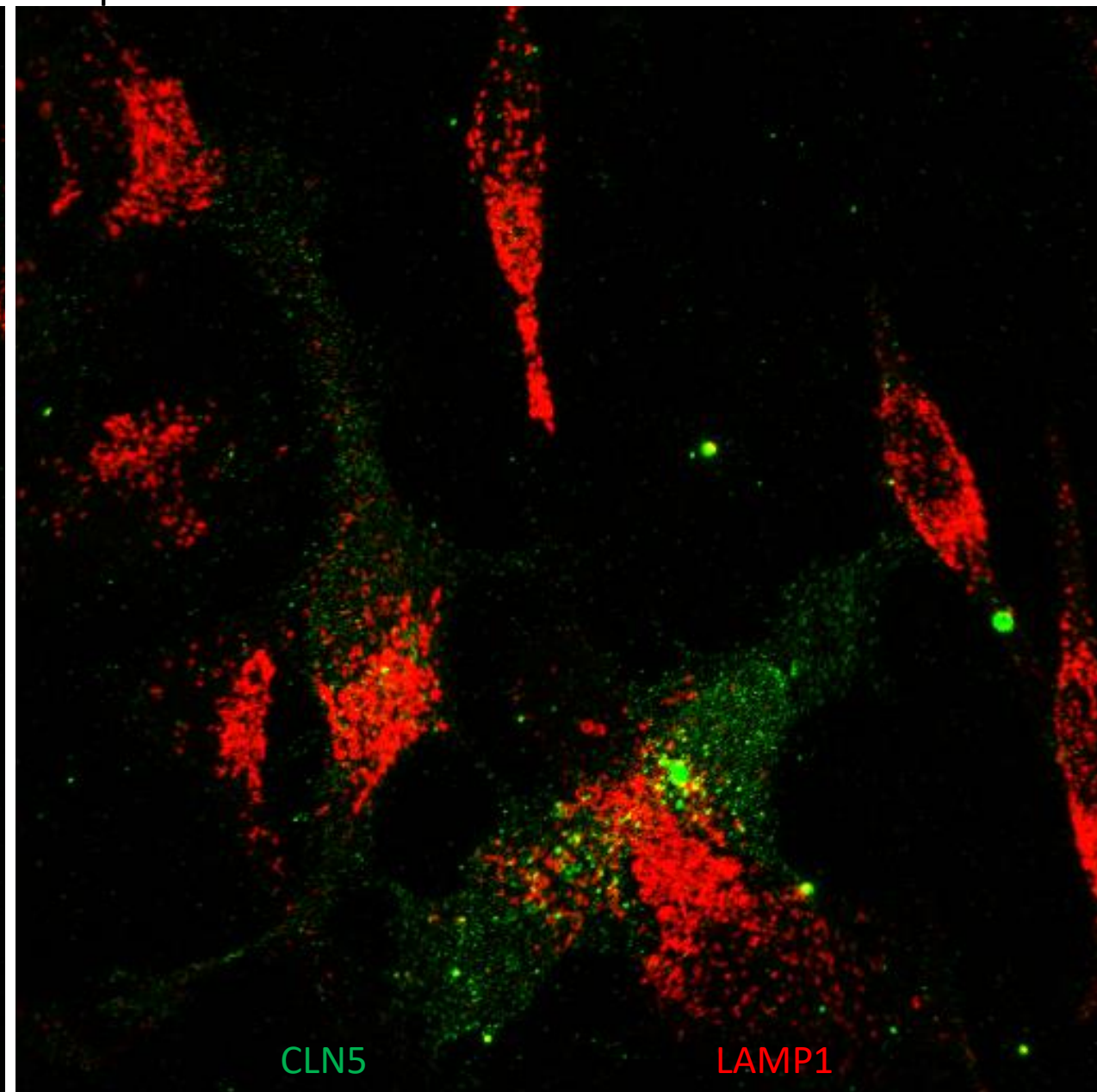
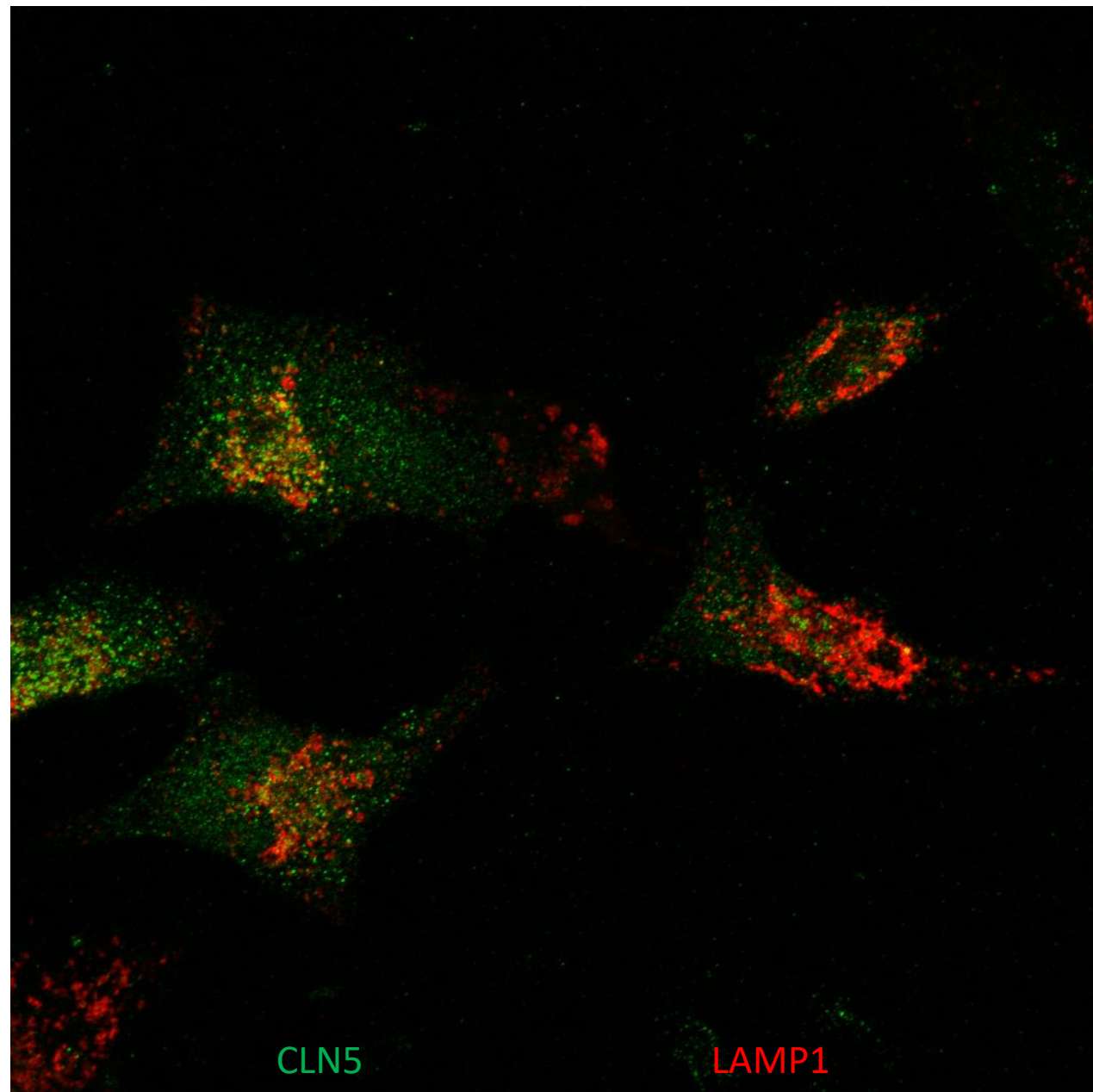CLN5   LAMP1   CLN5   LAMP1
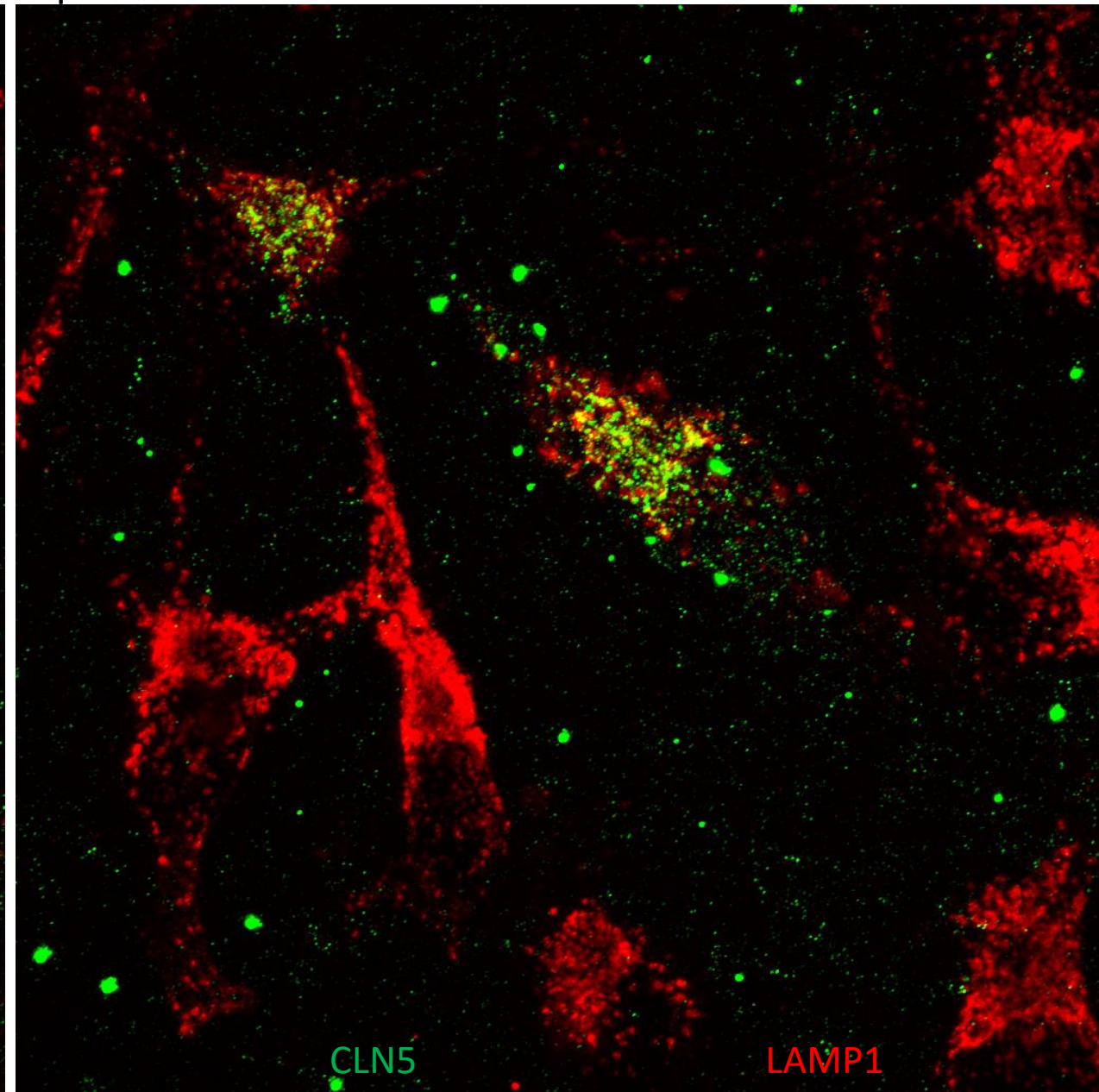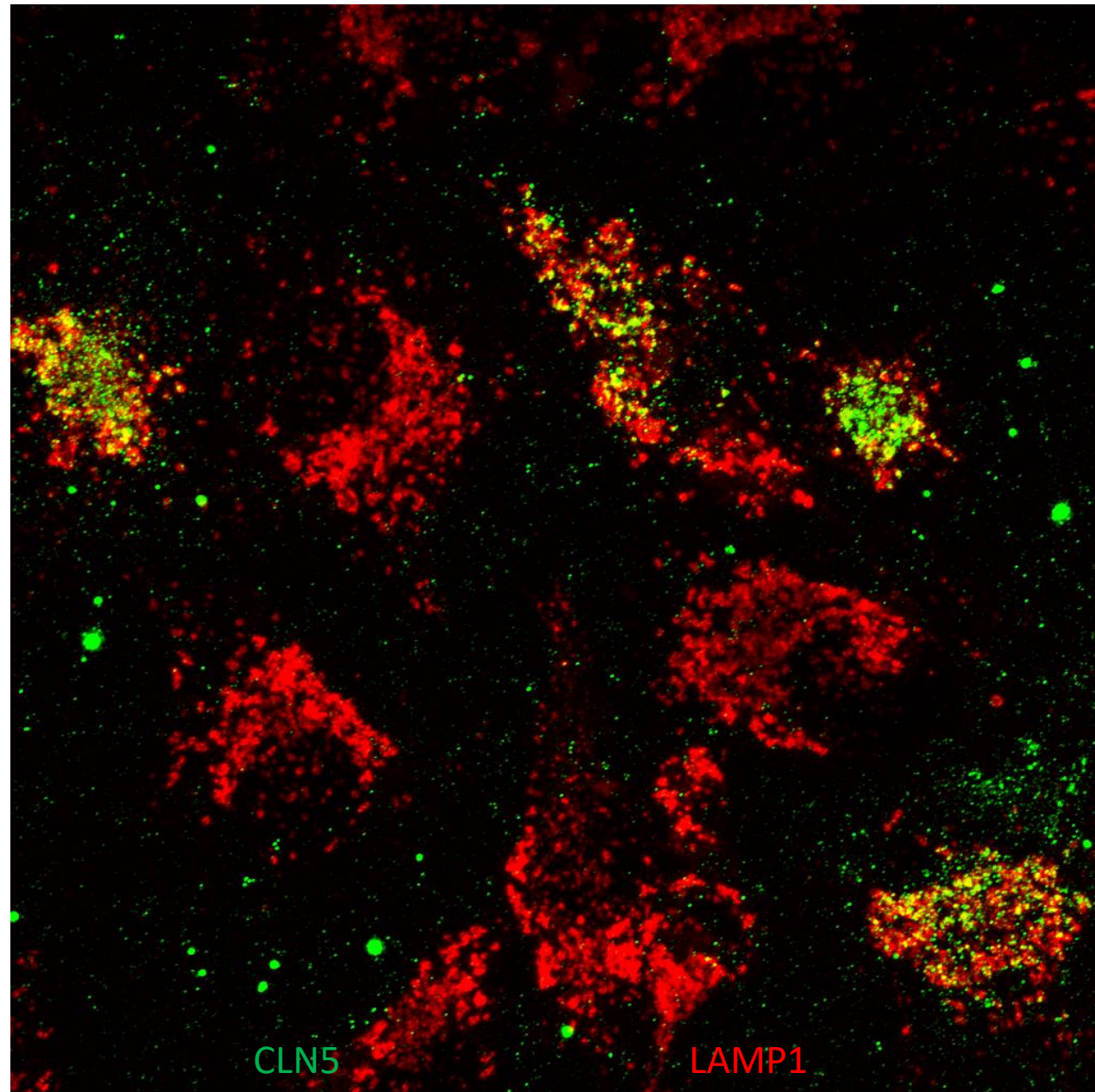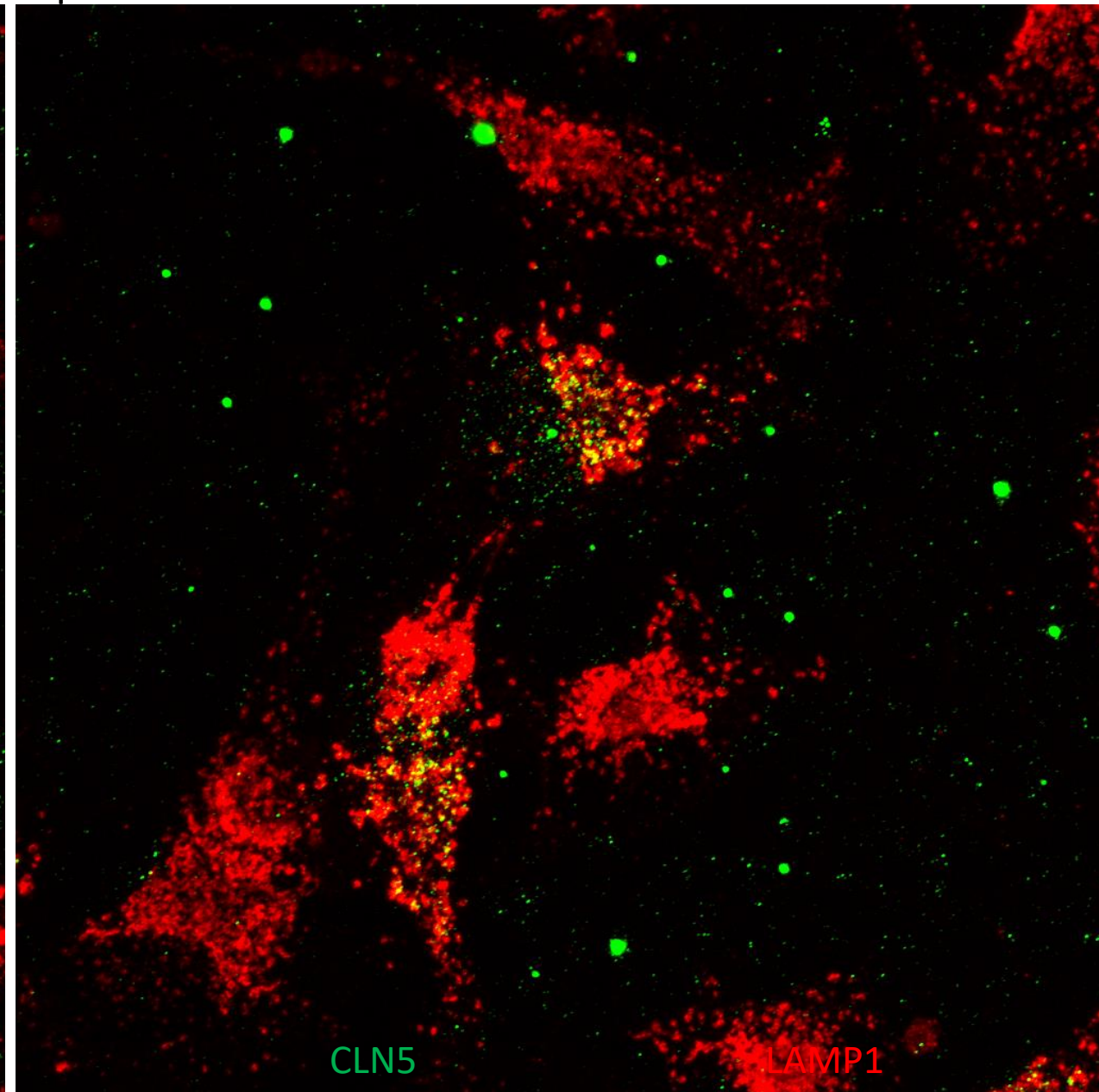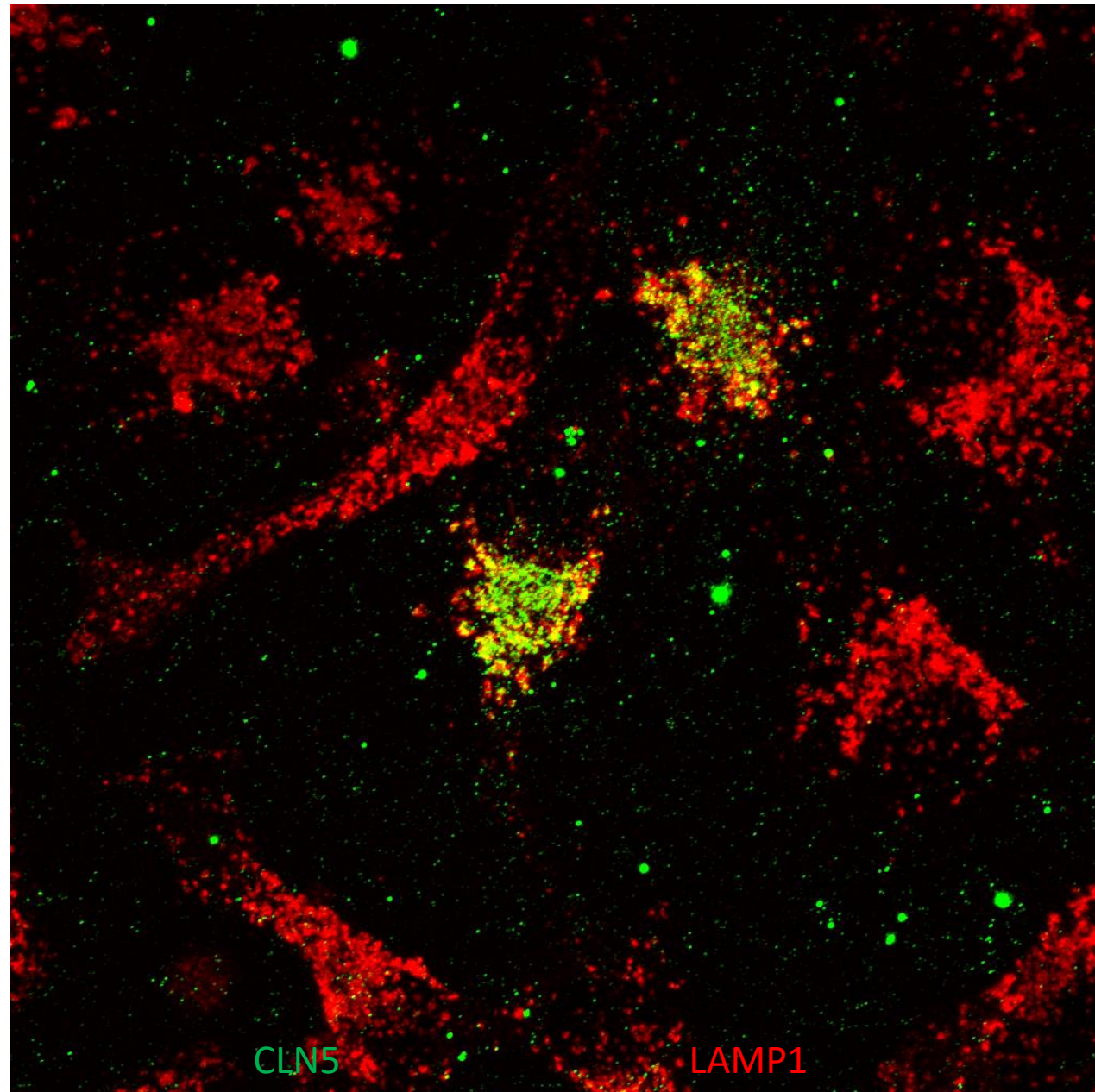
WT CLN5 expression

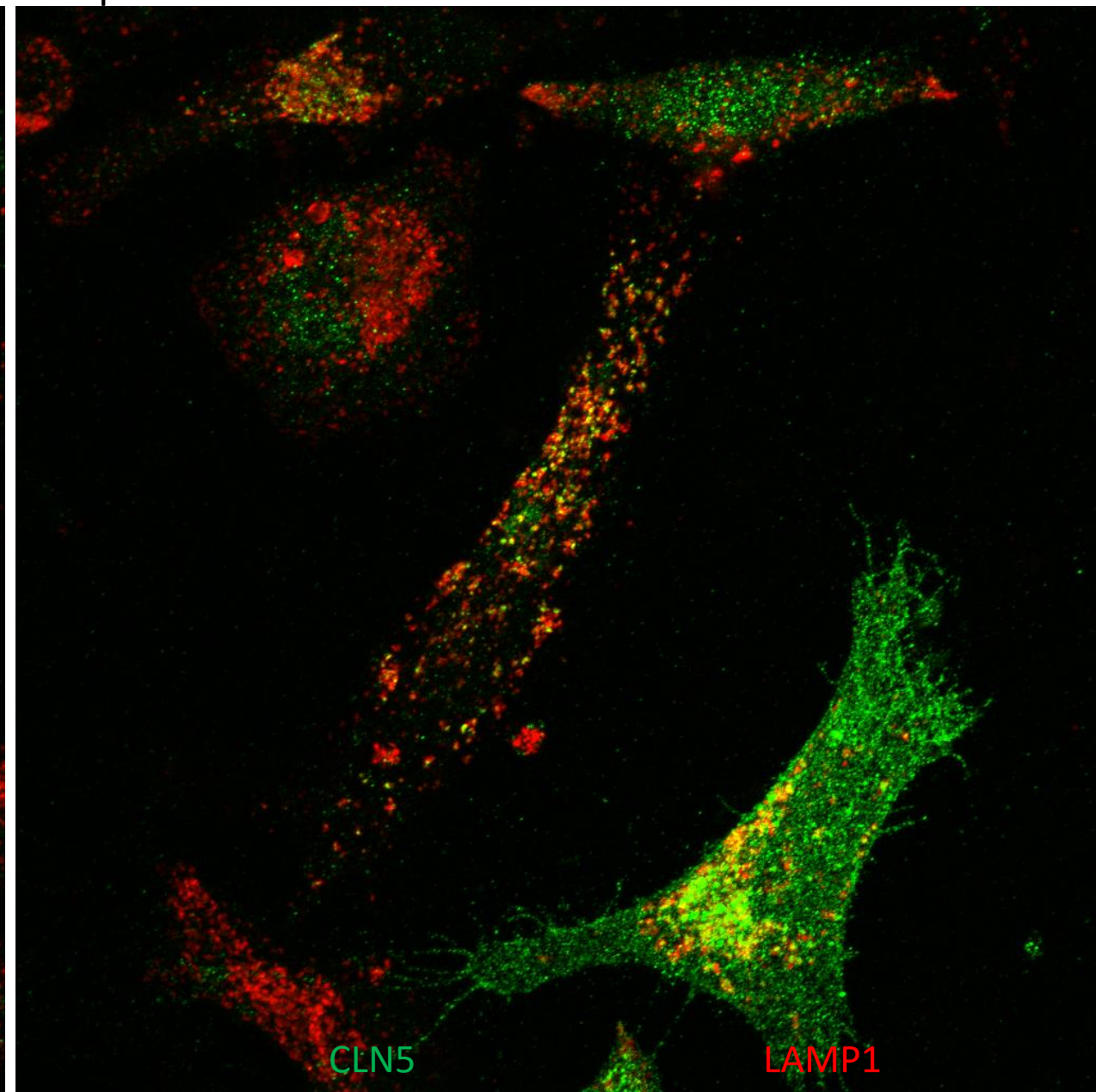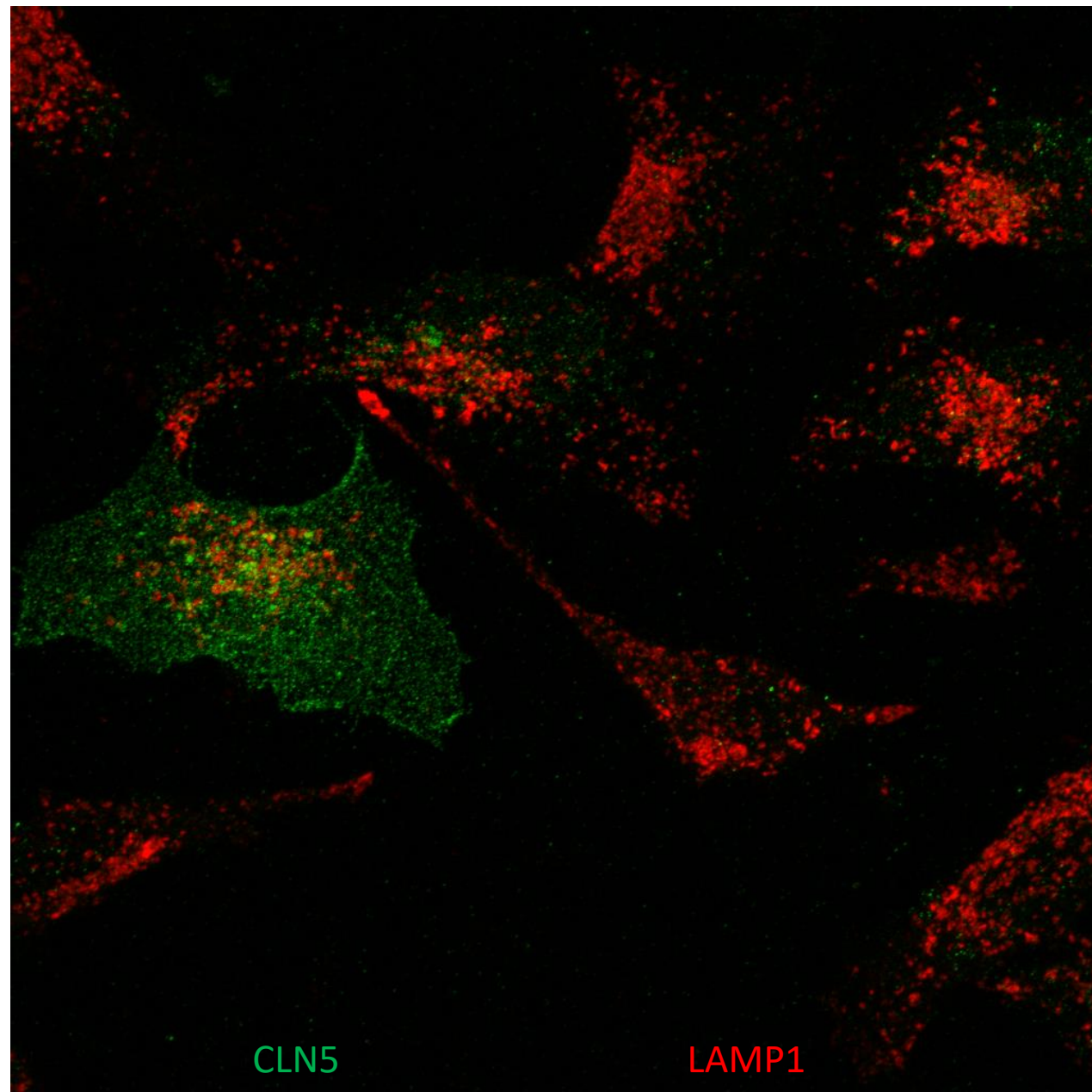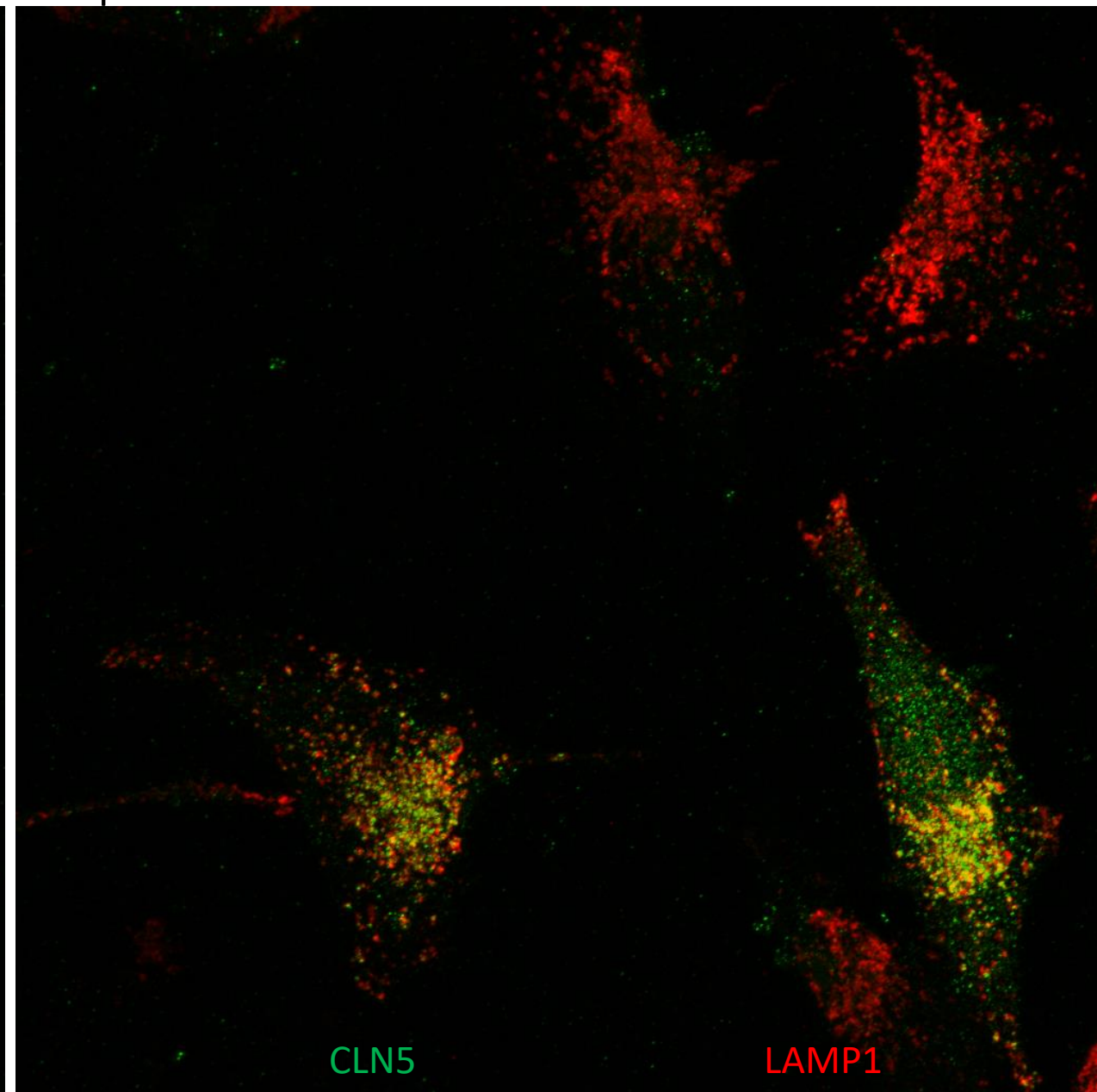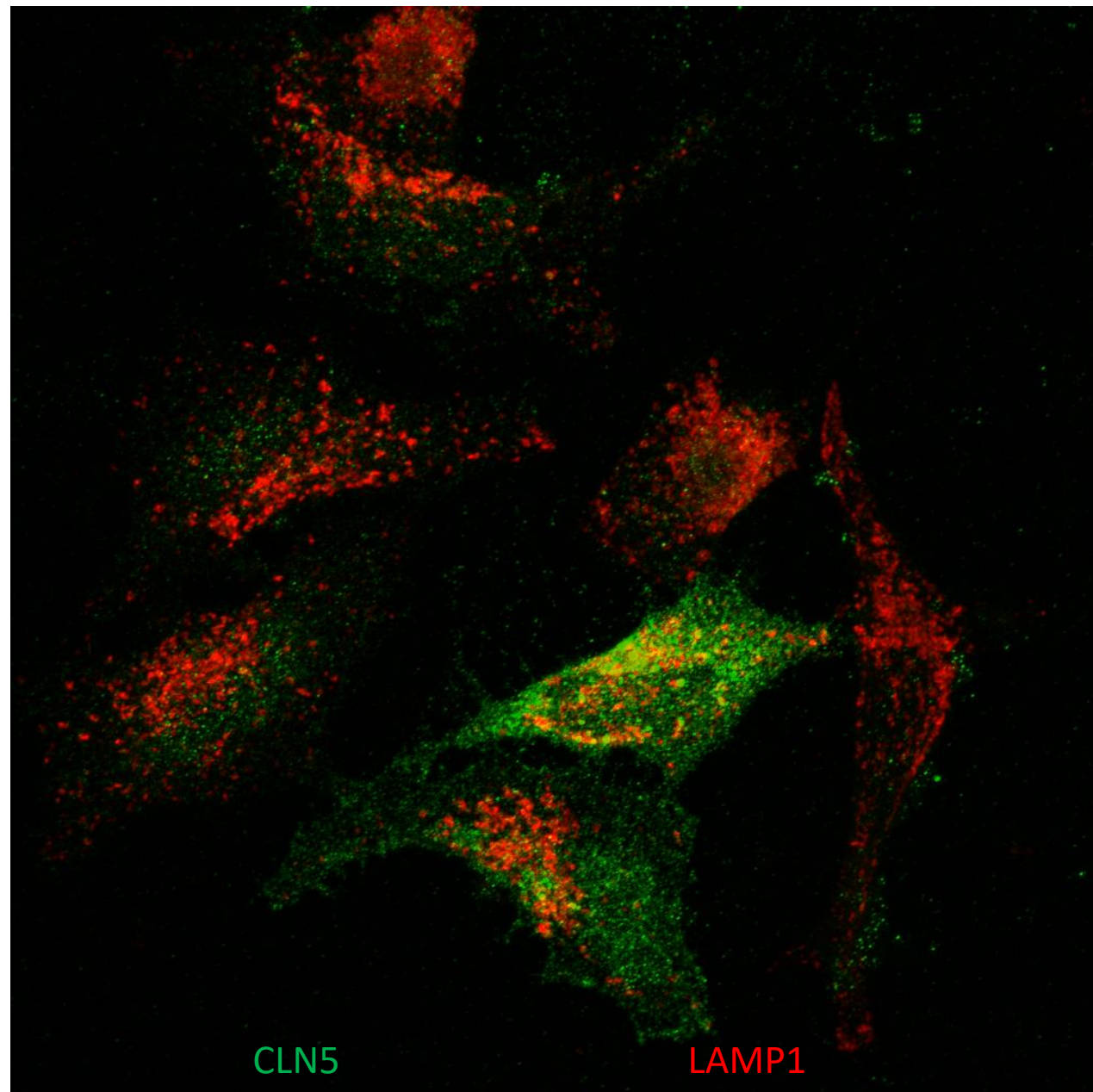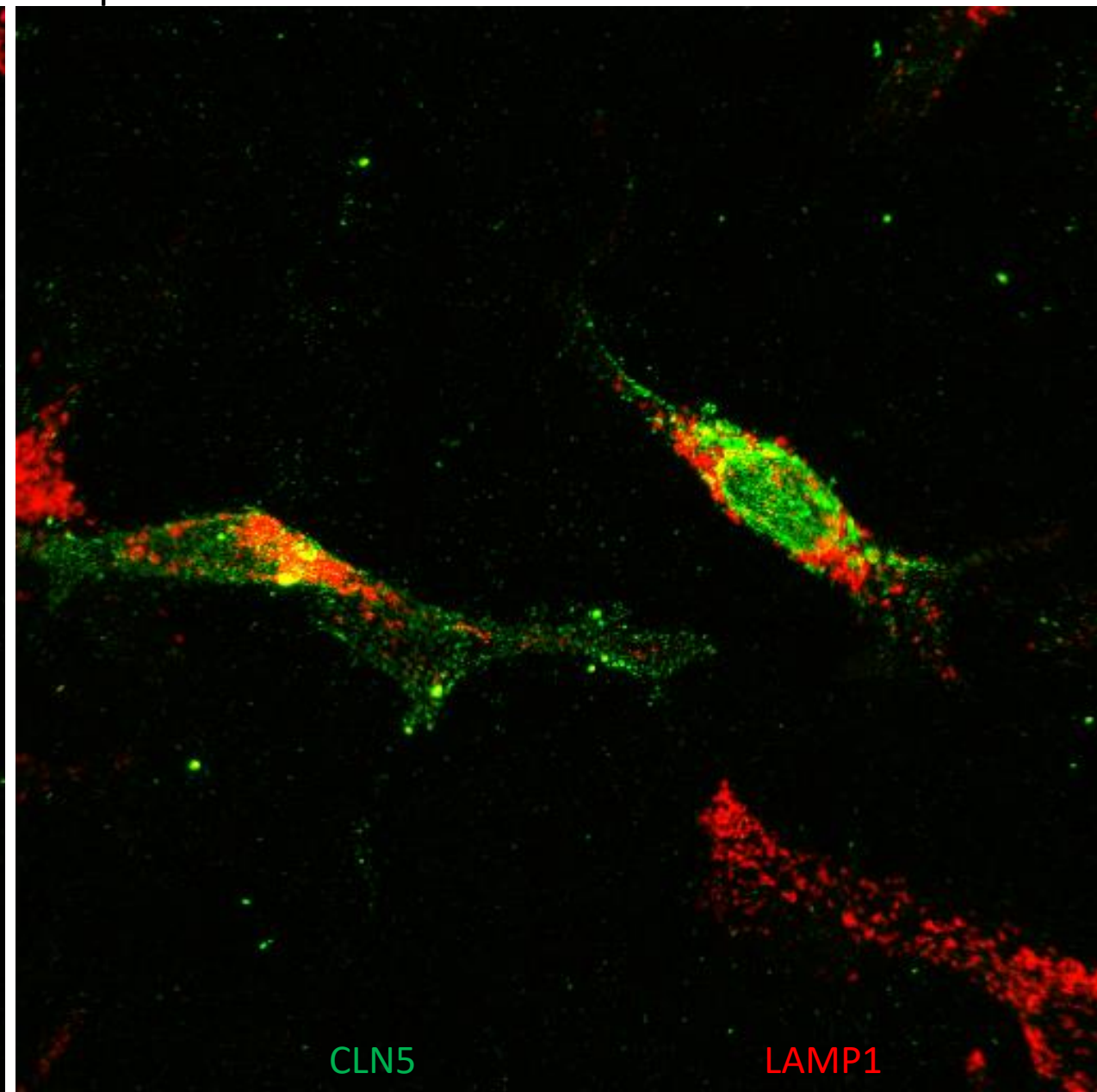# N320S CLN5 expression and co-localization with Lysosomal marker Lamp1
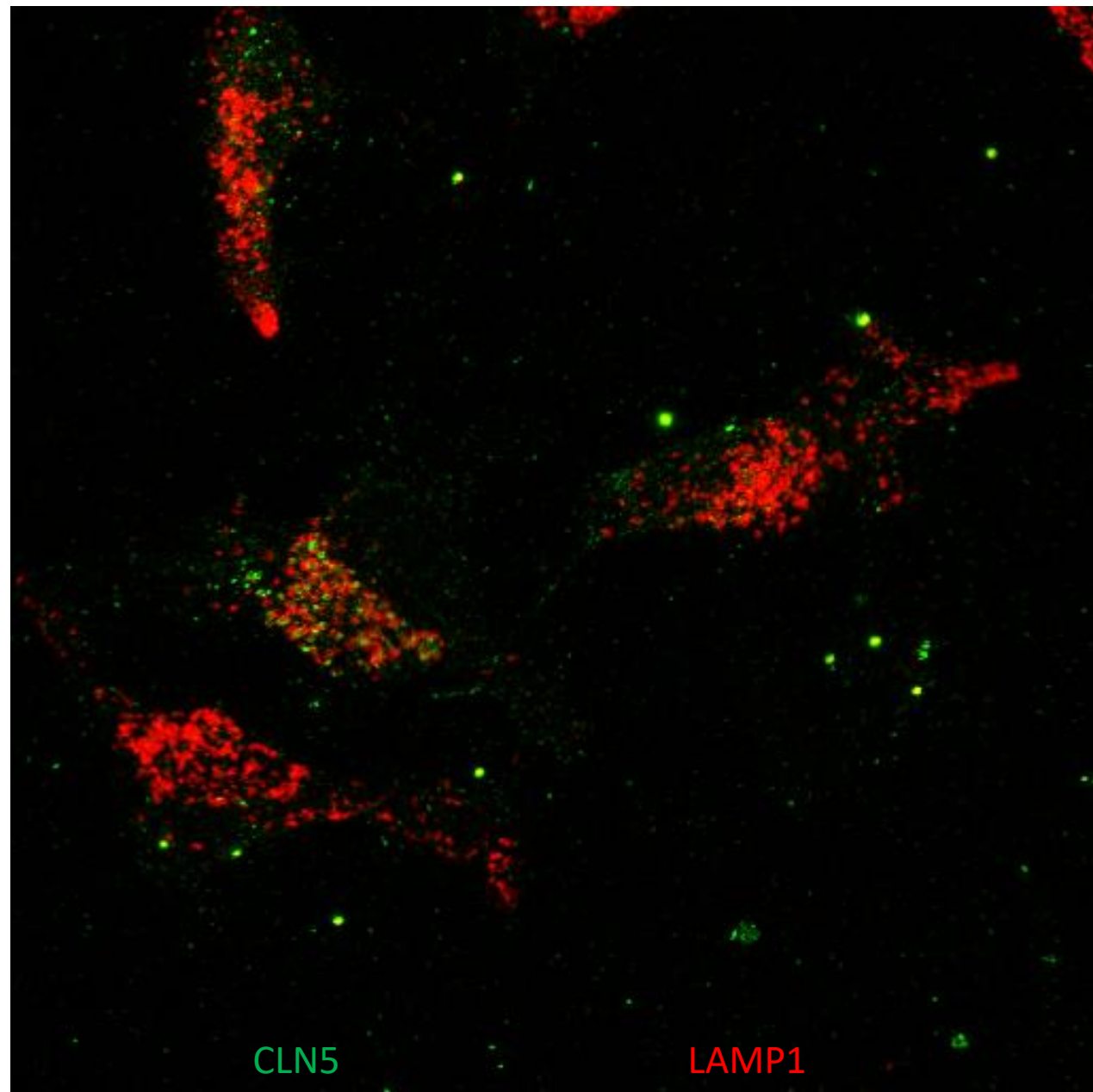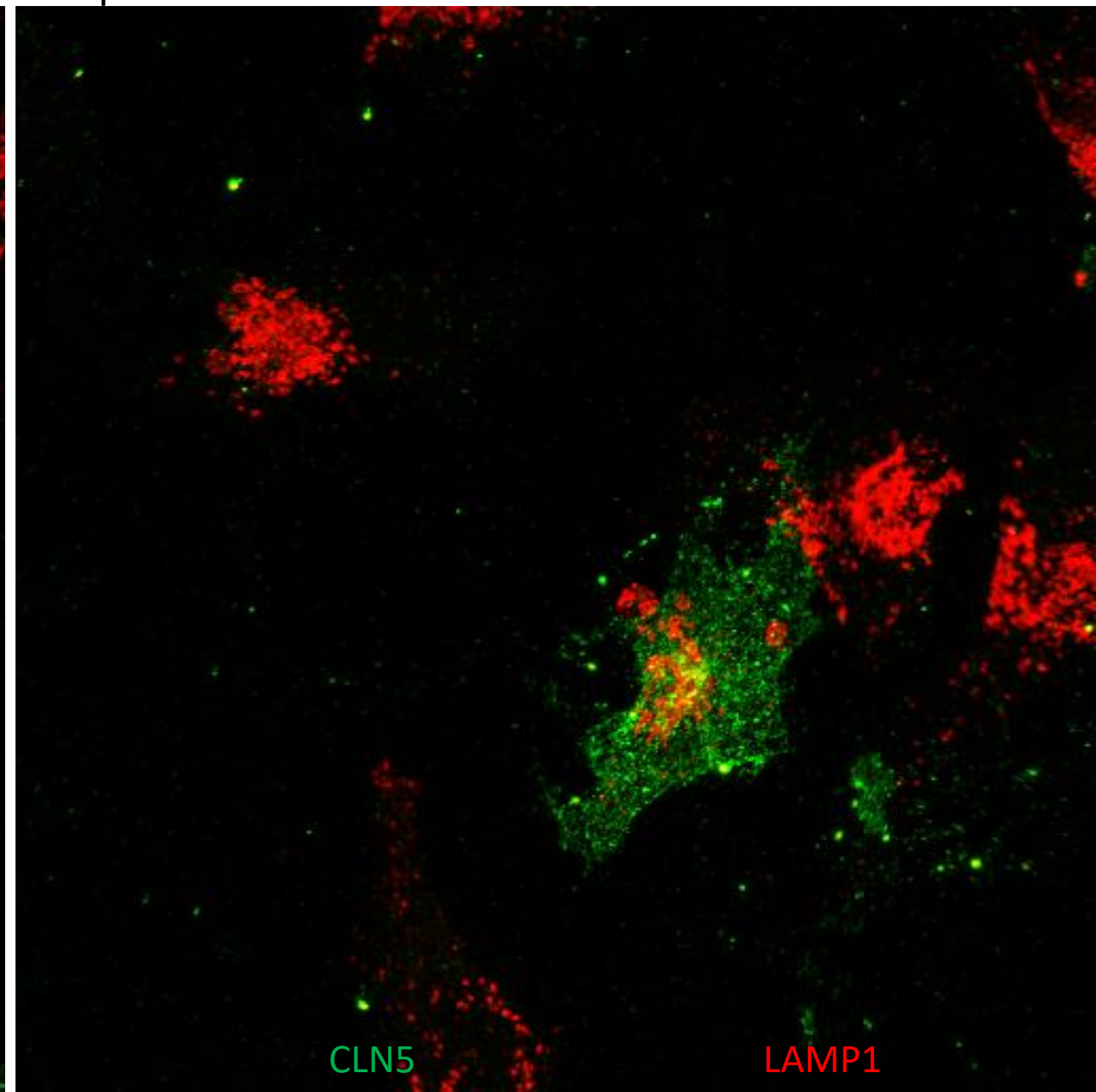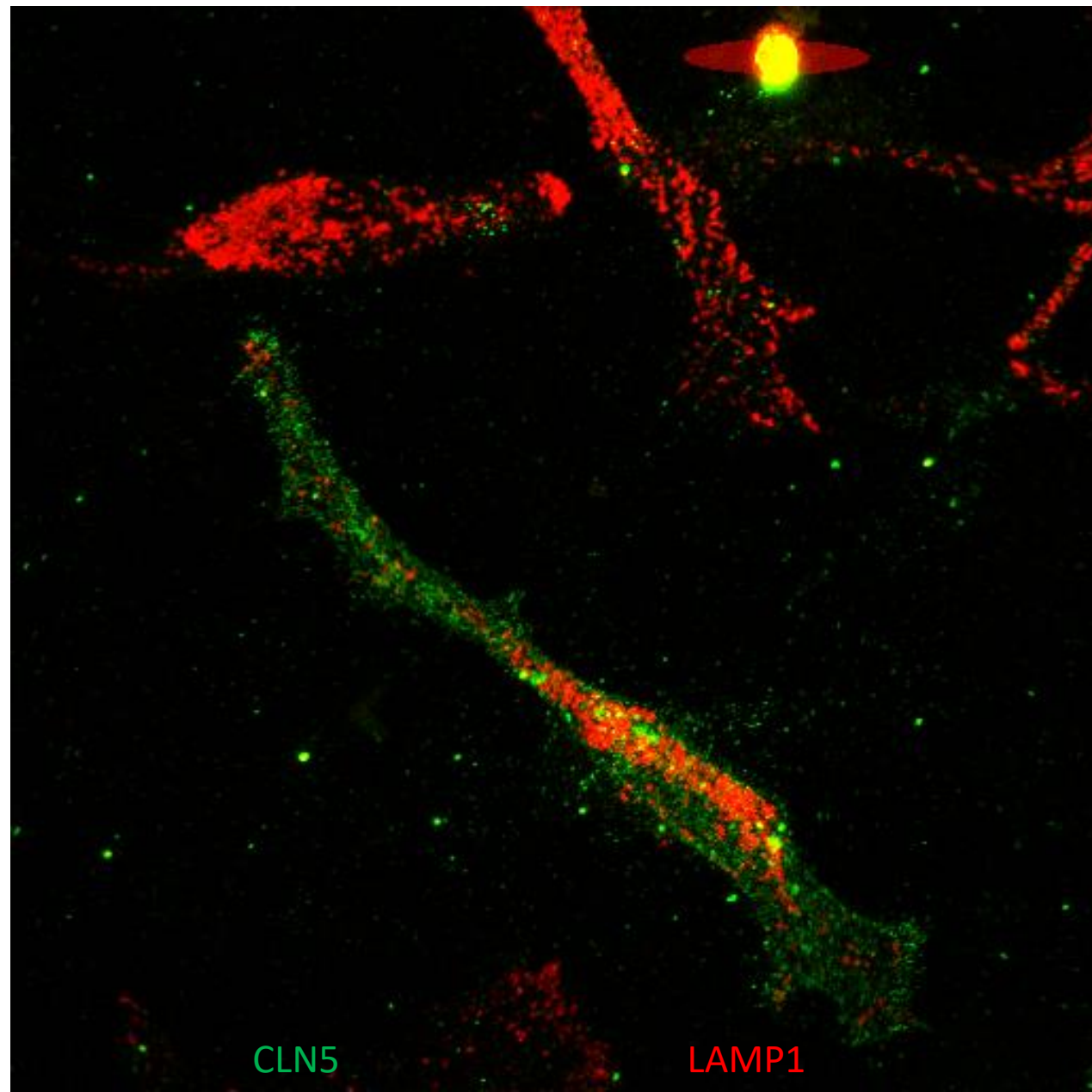
N320S CLN5 expression

CLN5   LAMP1   CLN5   LAMP1

N320S CLN5 expression

CLN5   LAMP1   CLN5   LAMP1

N320S CLN5 expression

CLN5   LAMP1   CLN5   LAMP1

N320S CLN5 expression

CLN5   LAMP1   CLN5   LAMP1

N320S CLN5 expression

CLN5   LAMP1   CLN5   LAMP1

N320S CLN5 expression

CLN5   LAMP1   CLN5   LAMP1

N320S CLN5 expression

CLN5   LAMP1   CLN5   LAMP1

N320S CLN5 expression

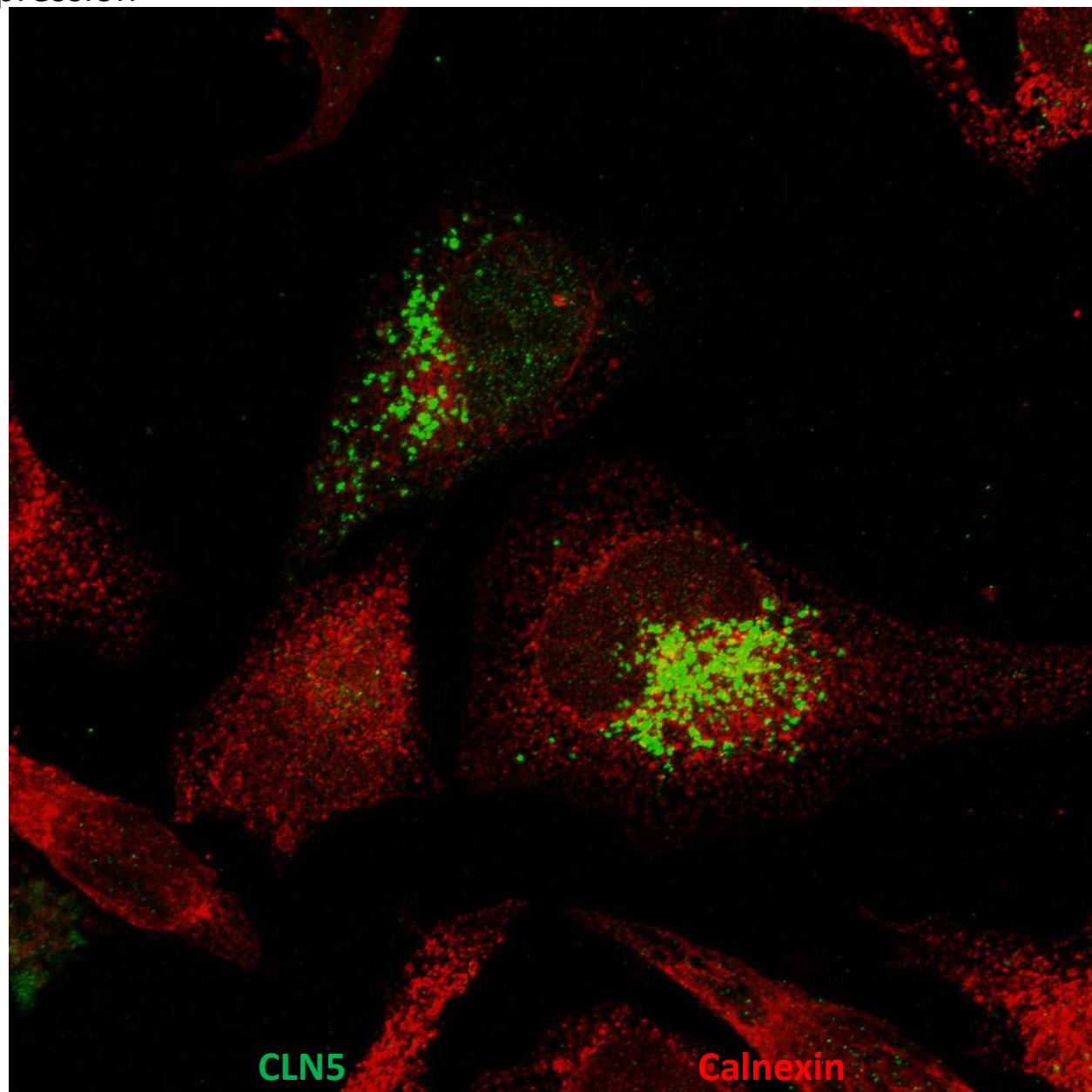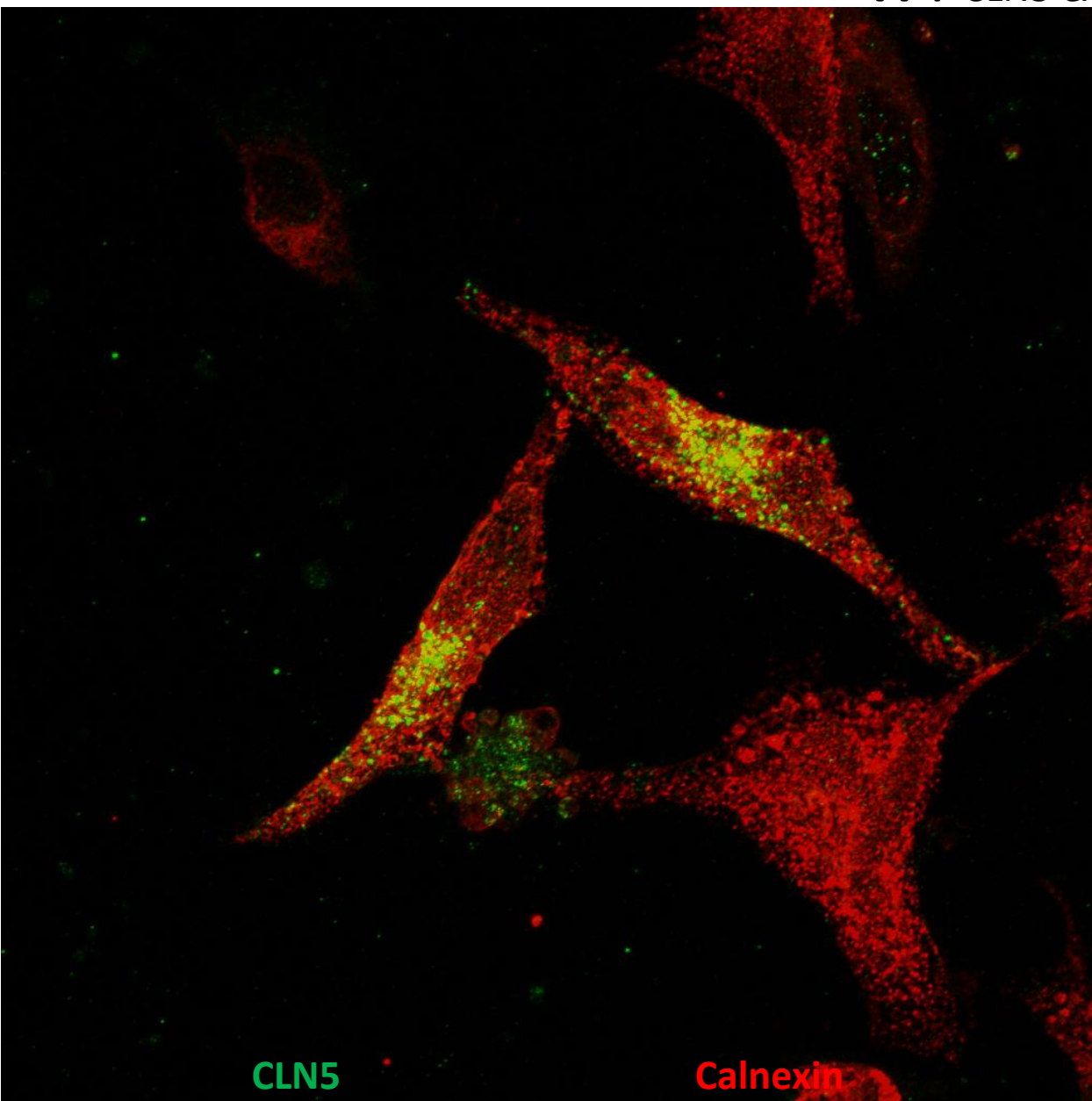CLN5   LAMP1   CLN5   LAMP1
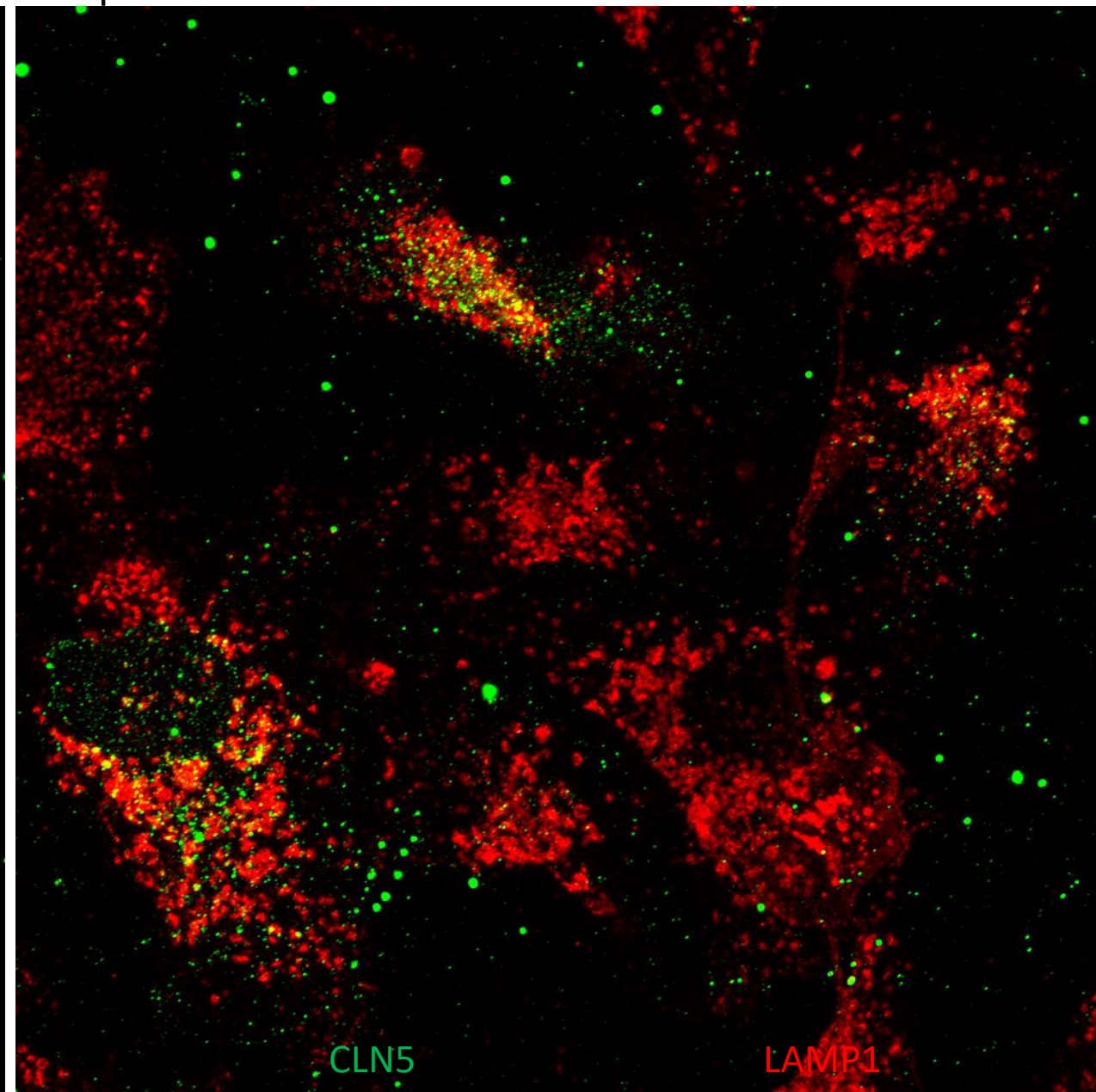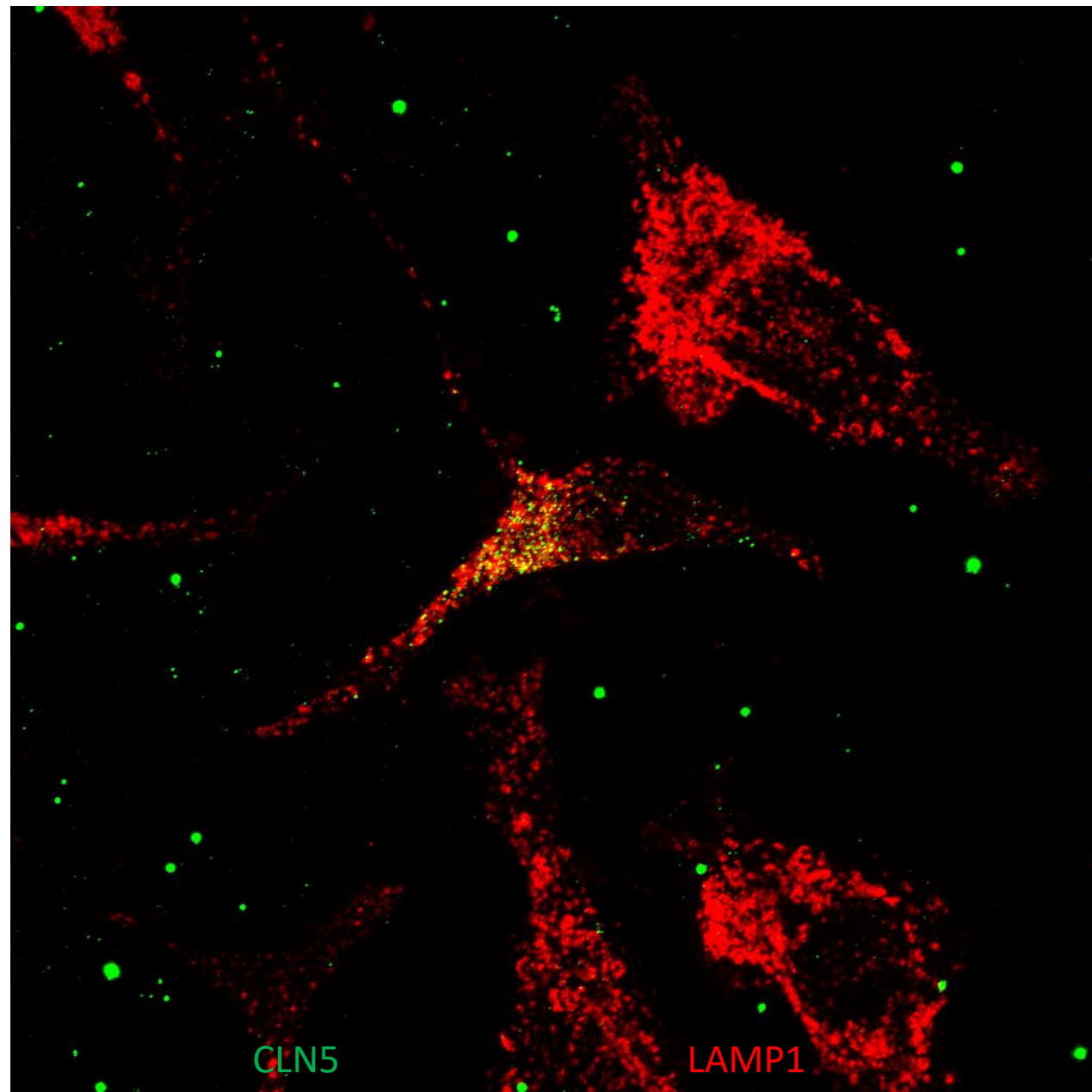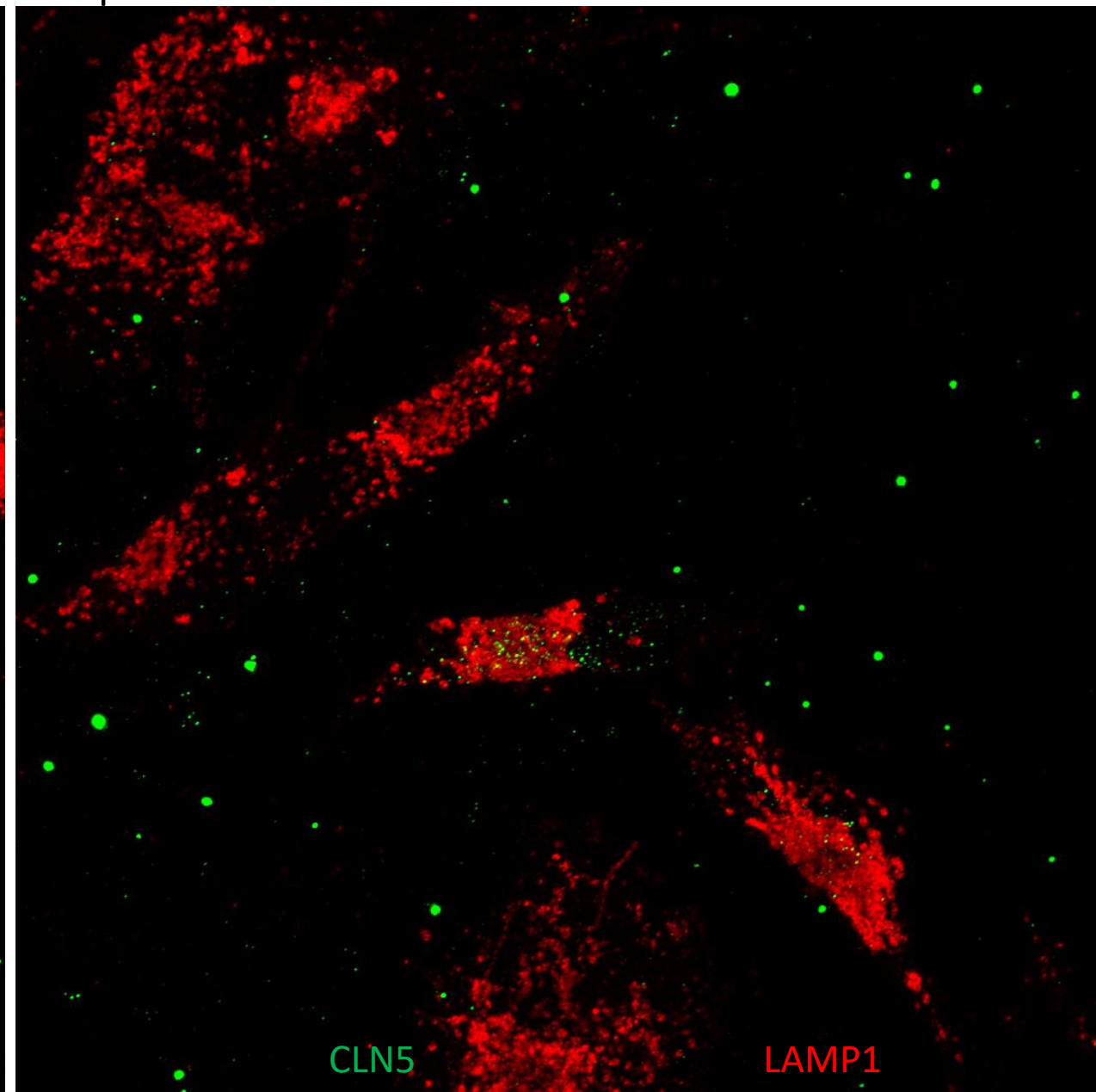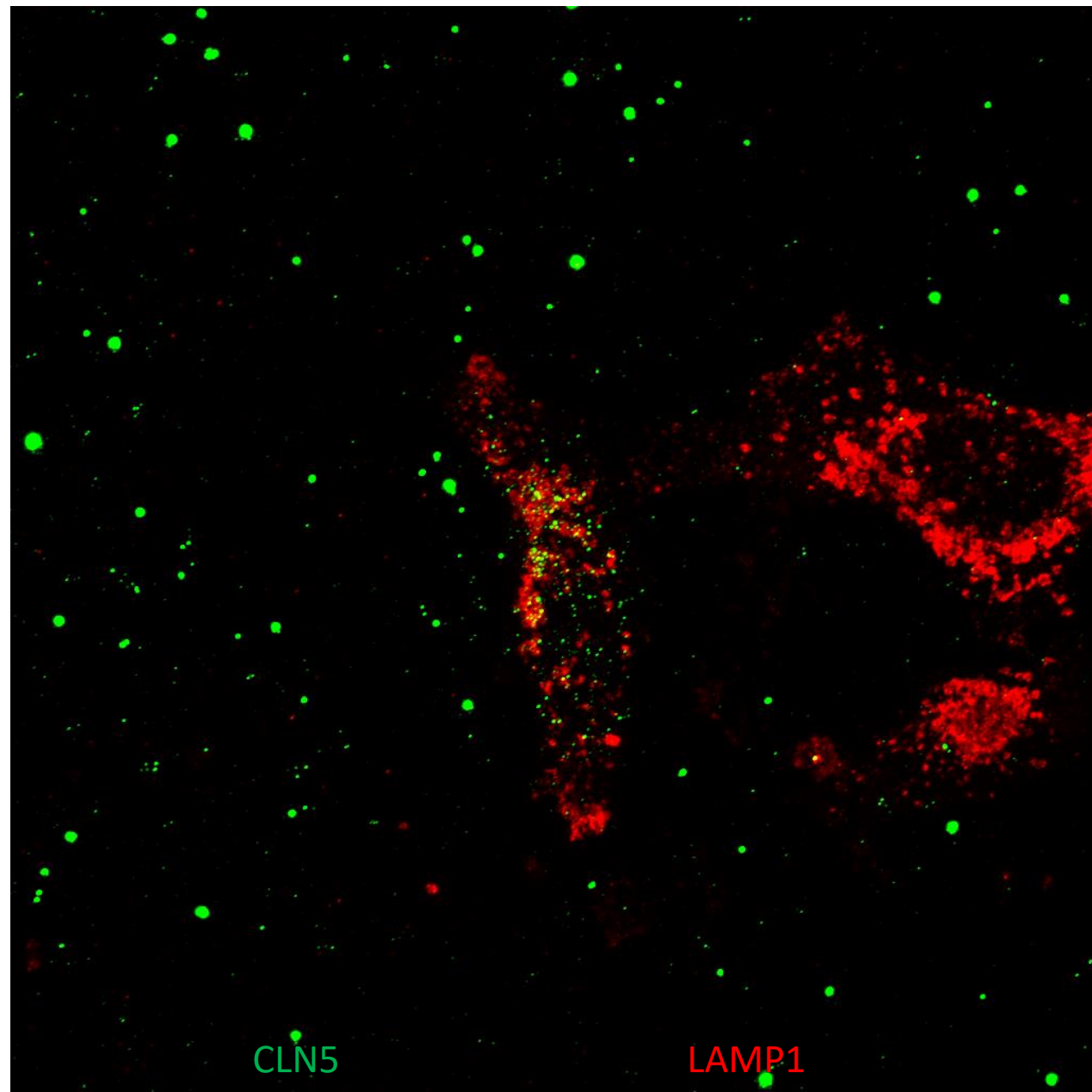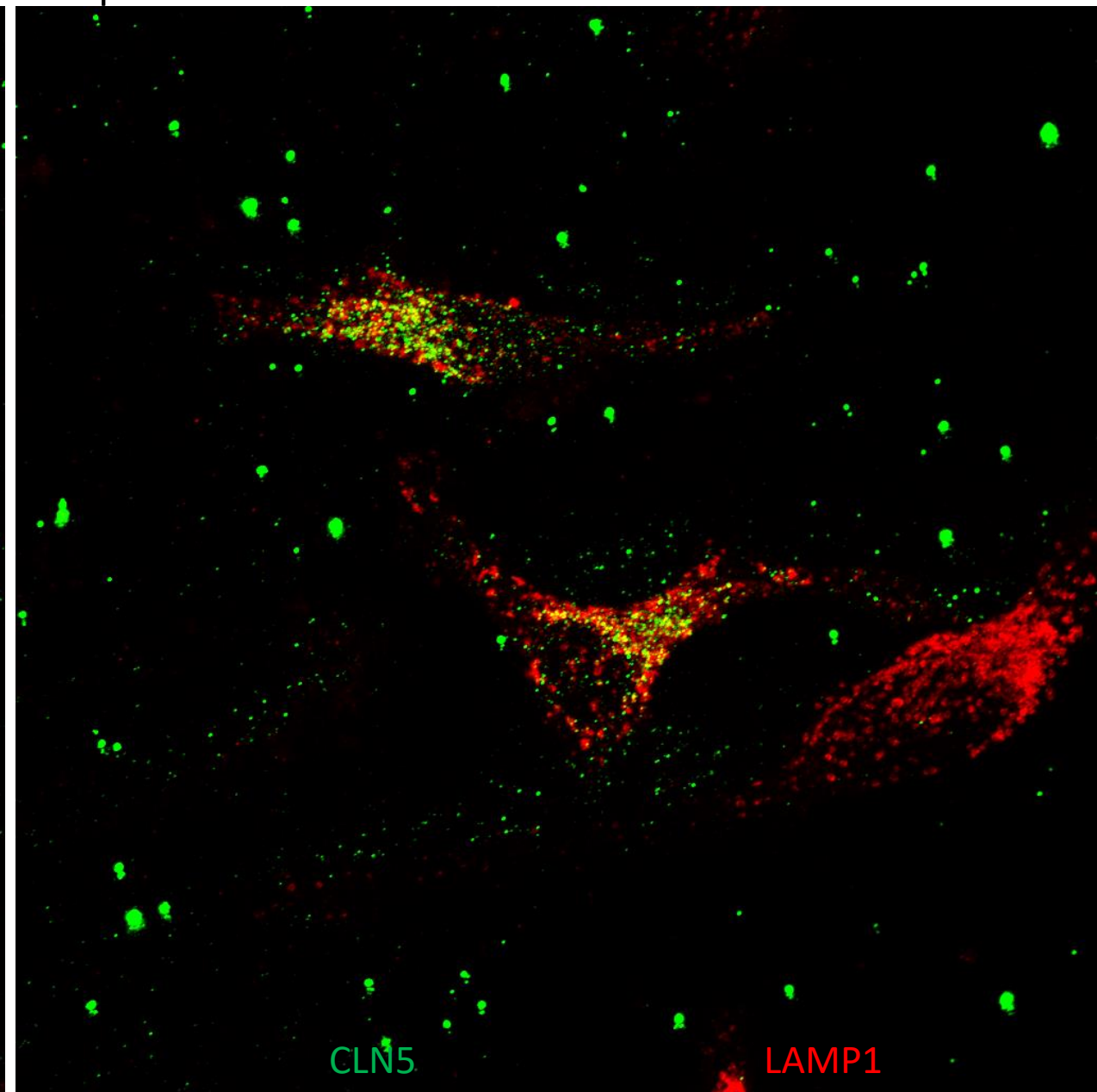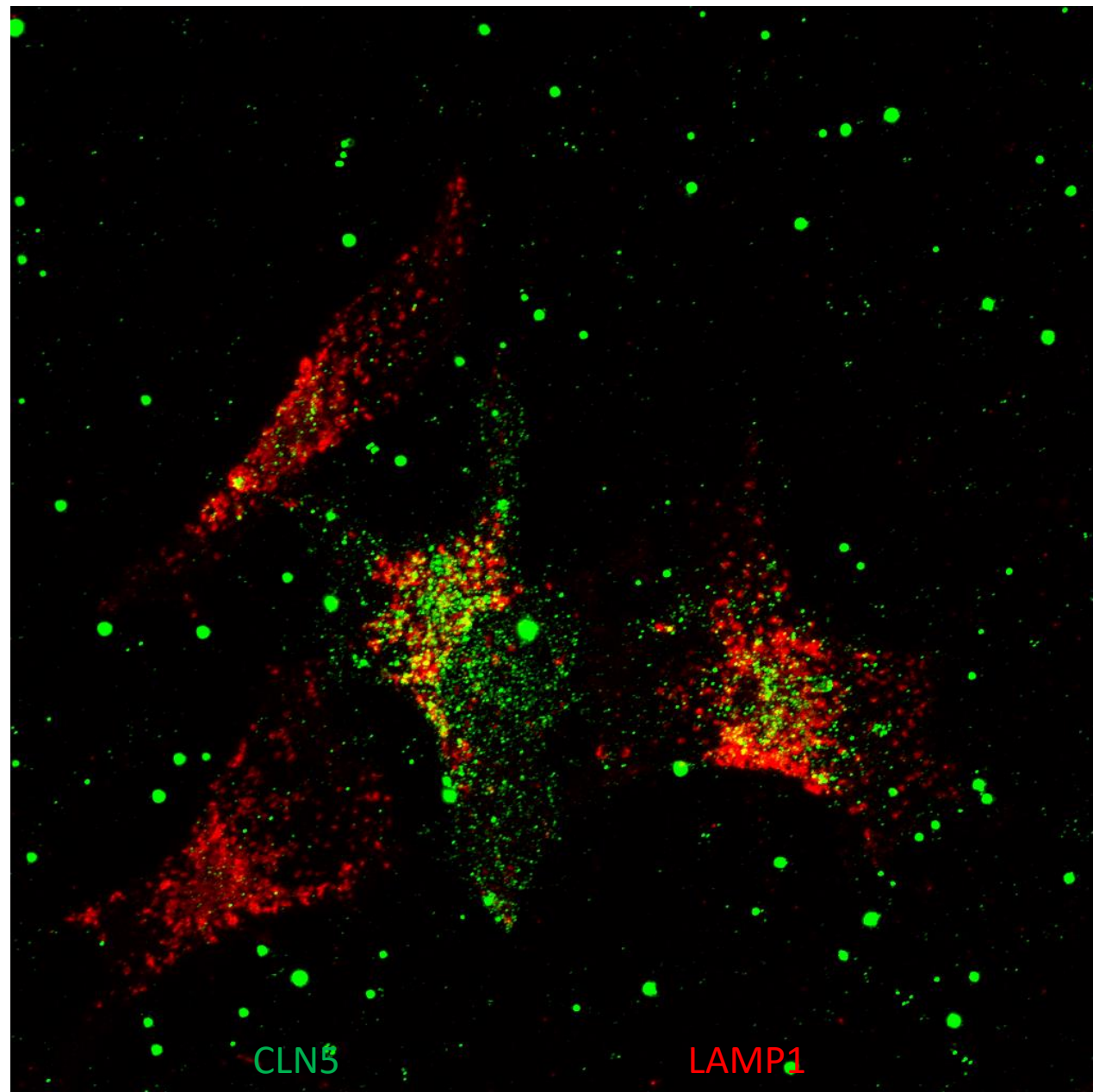
WT CLN5 expression
and co-localization with
ER marker Calnexin
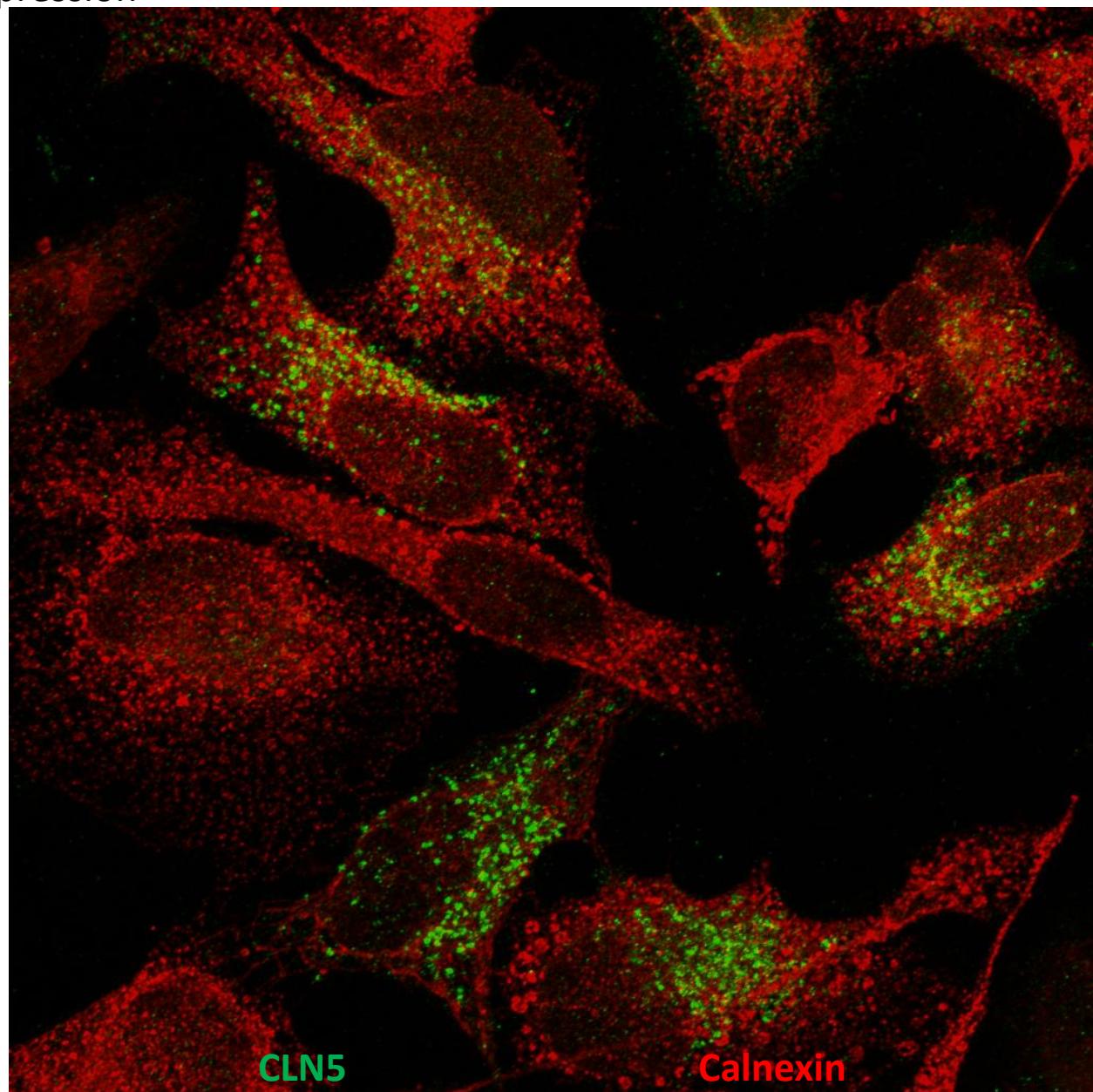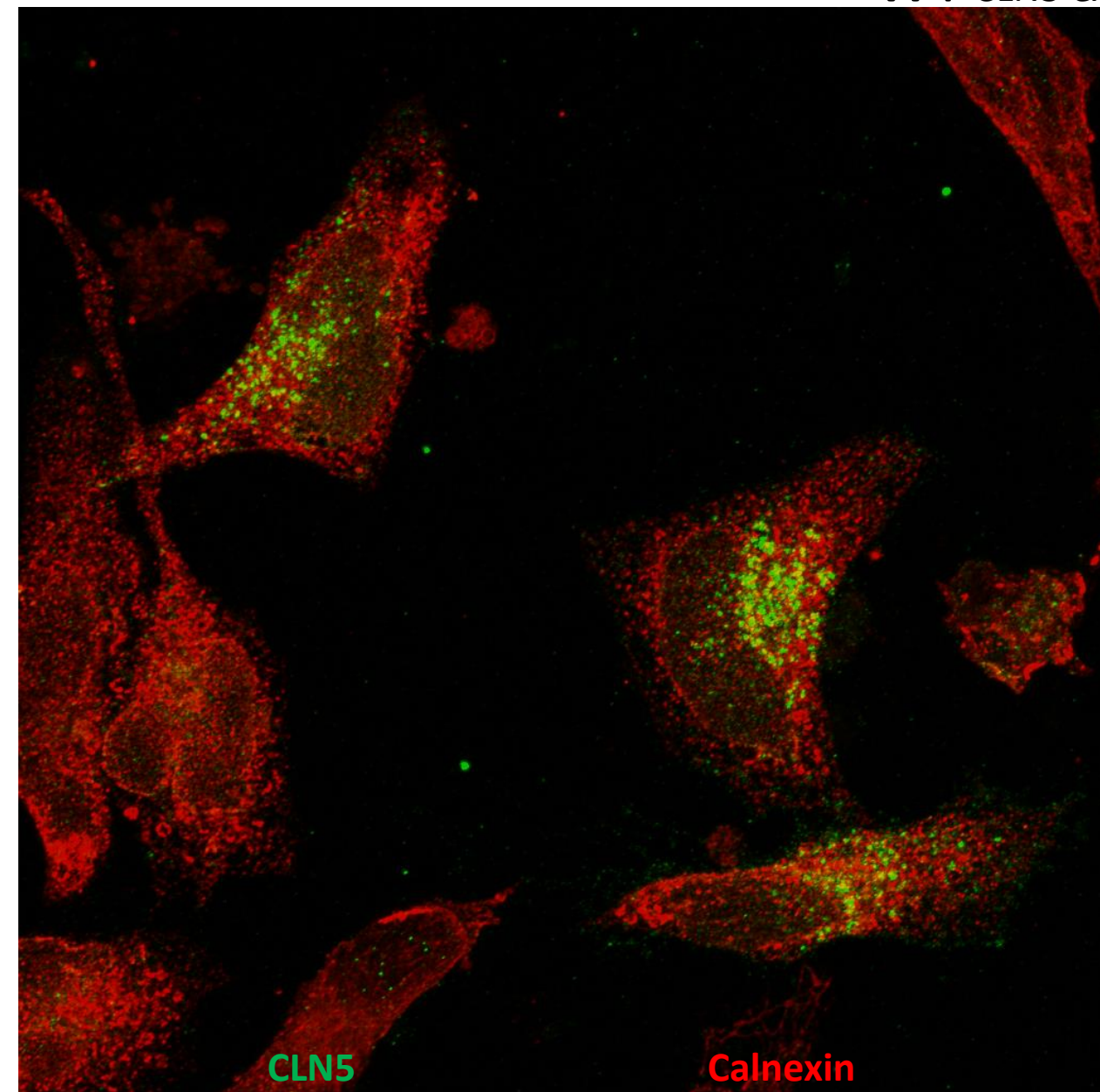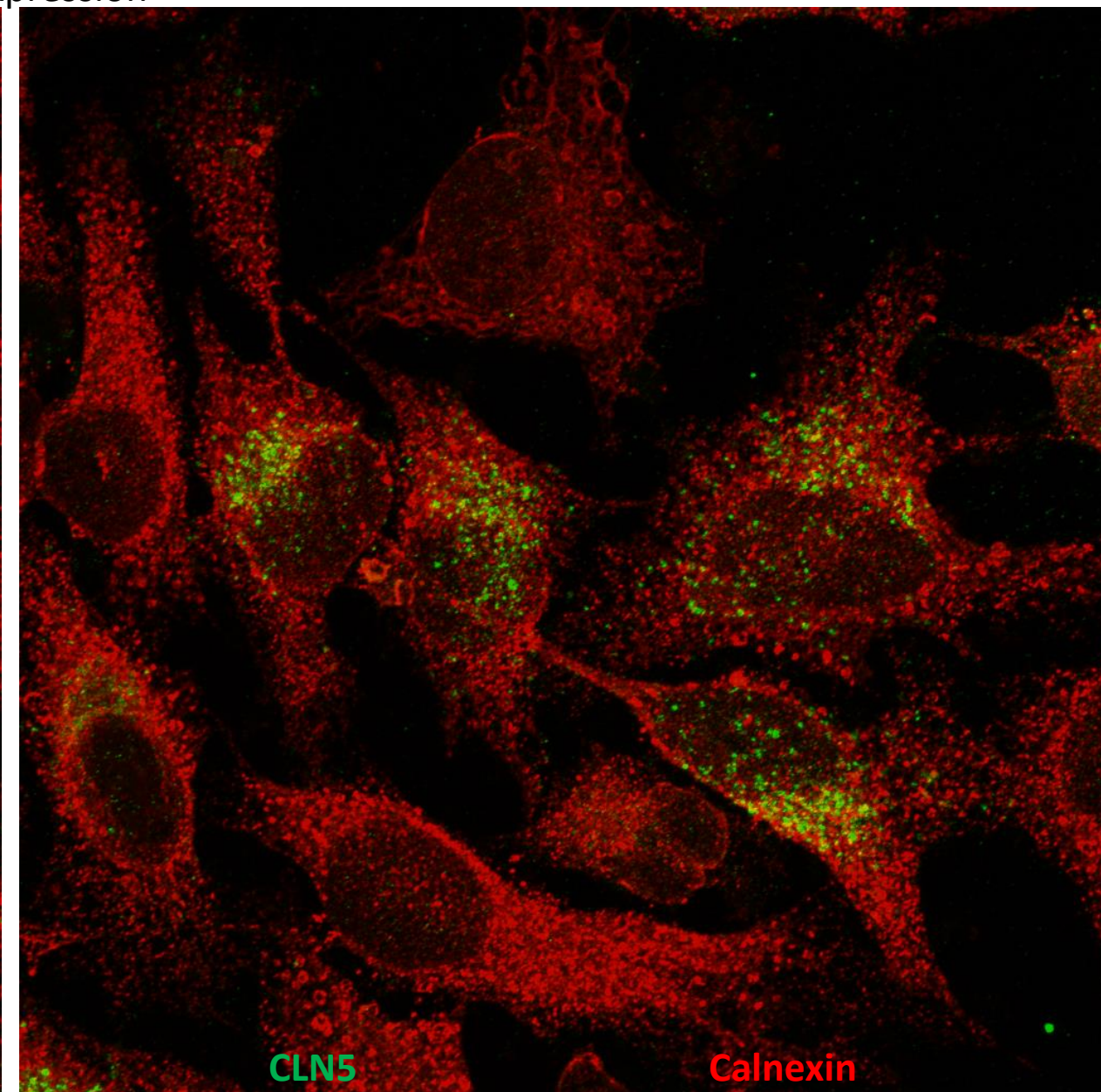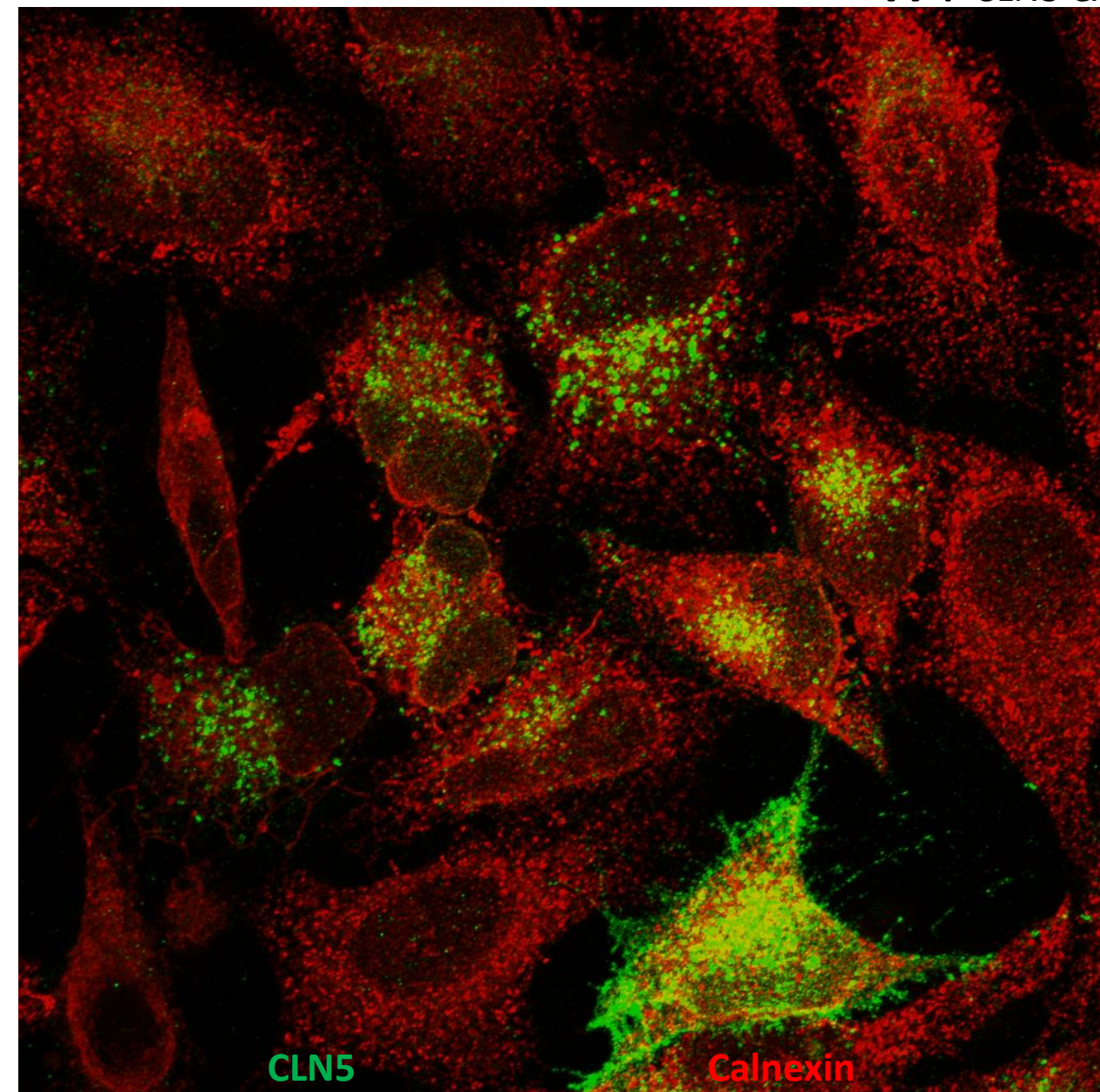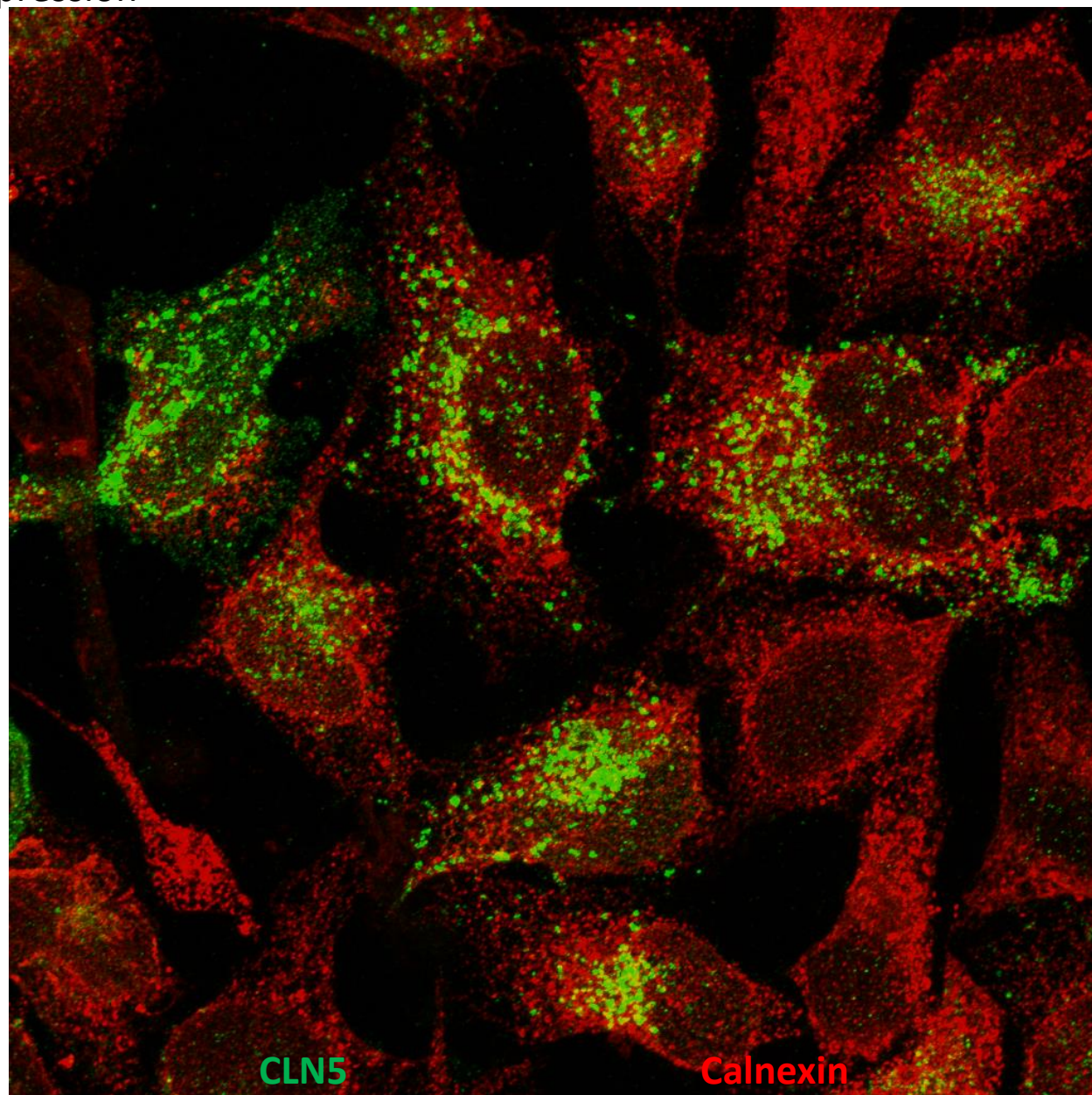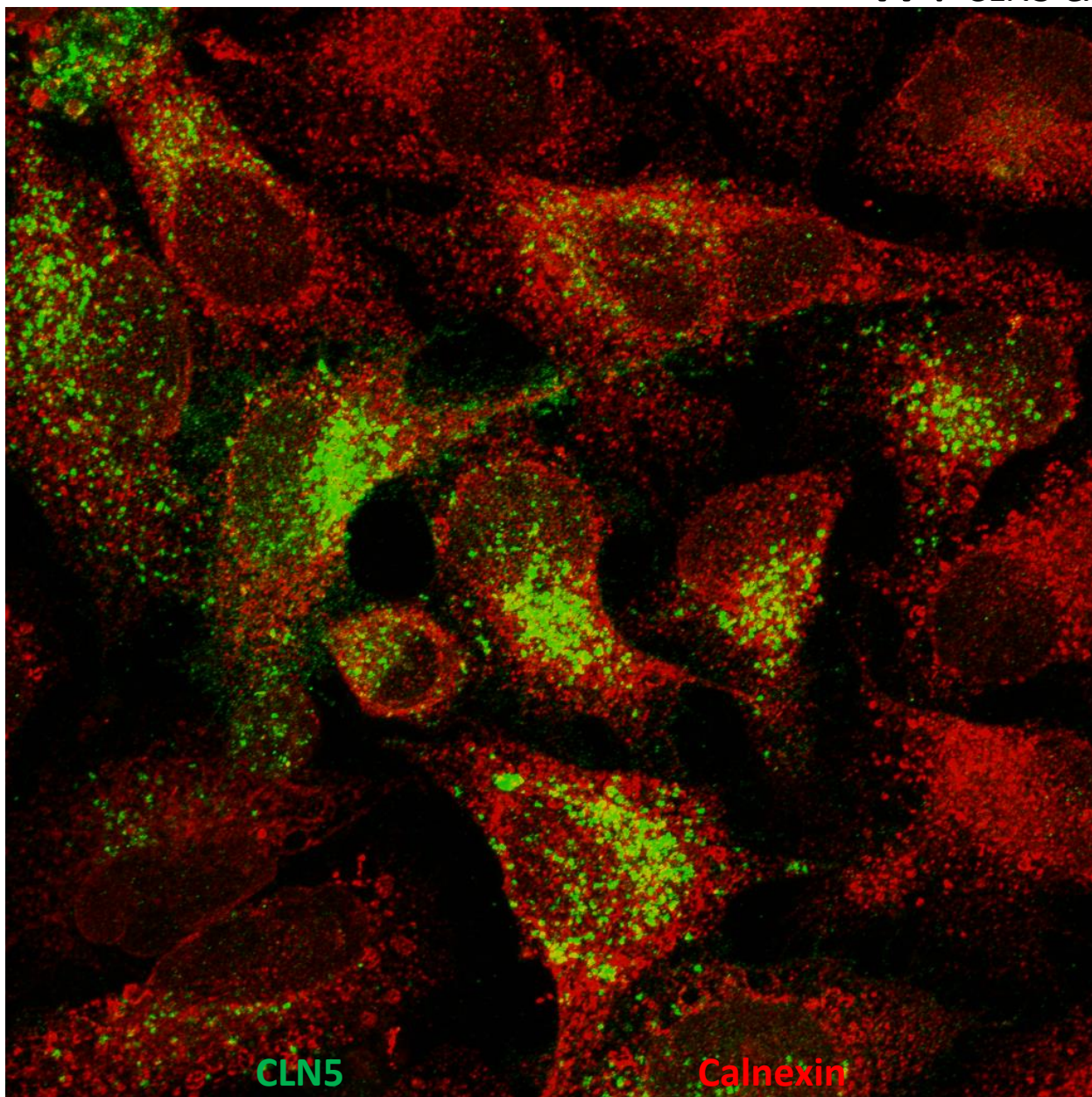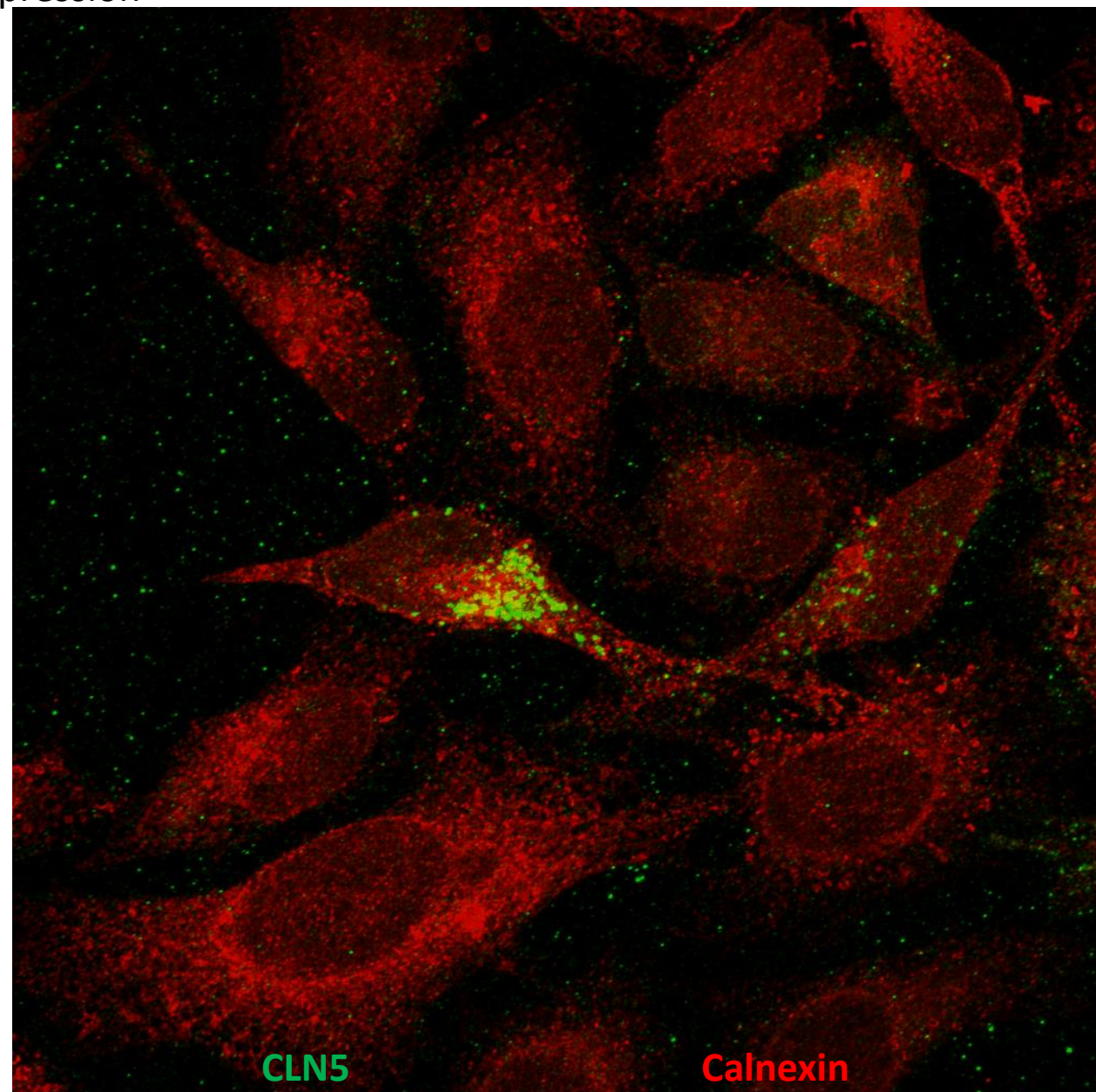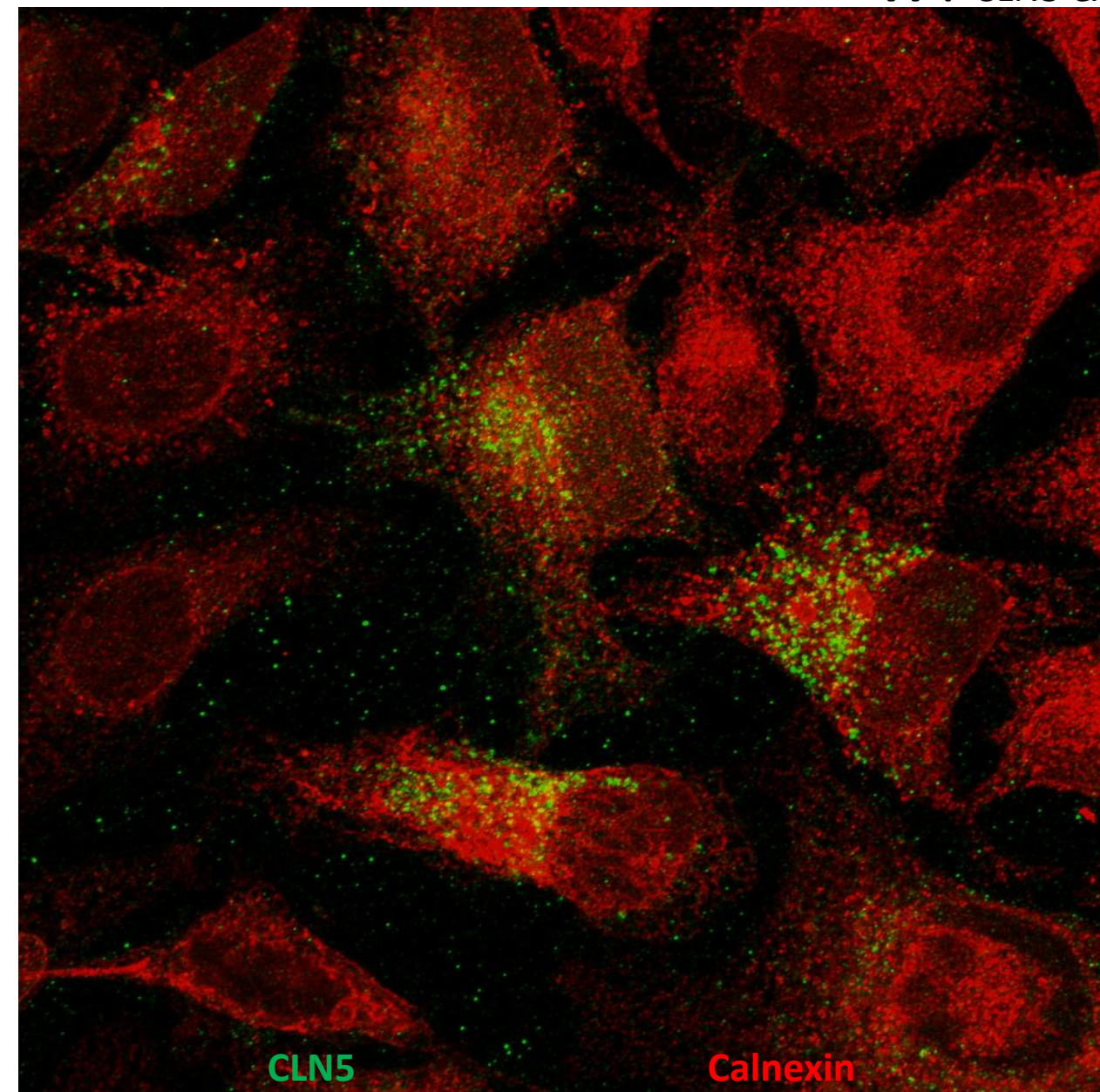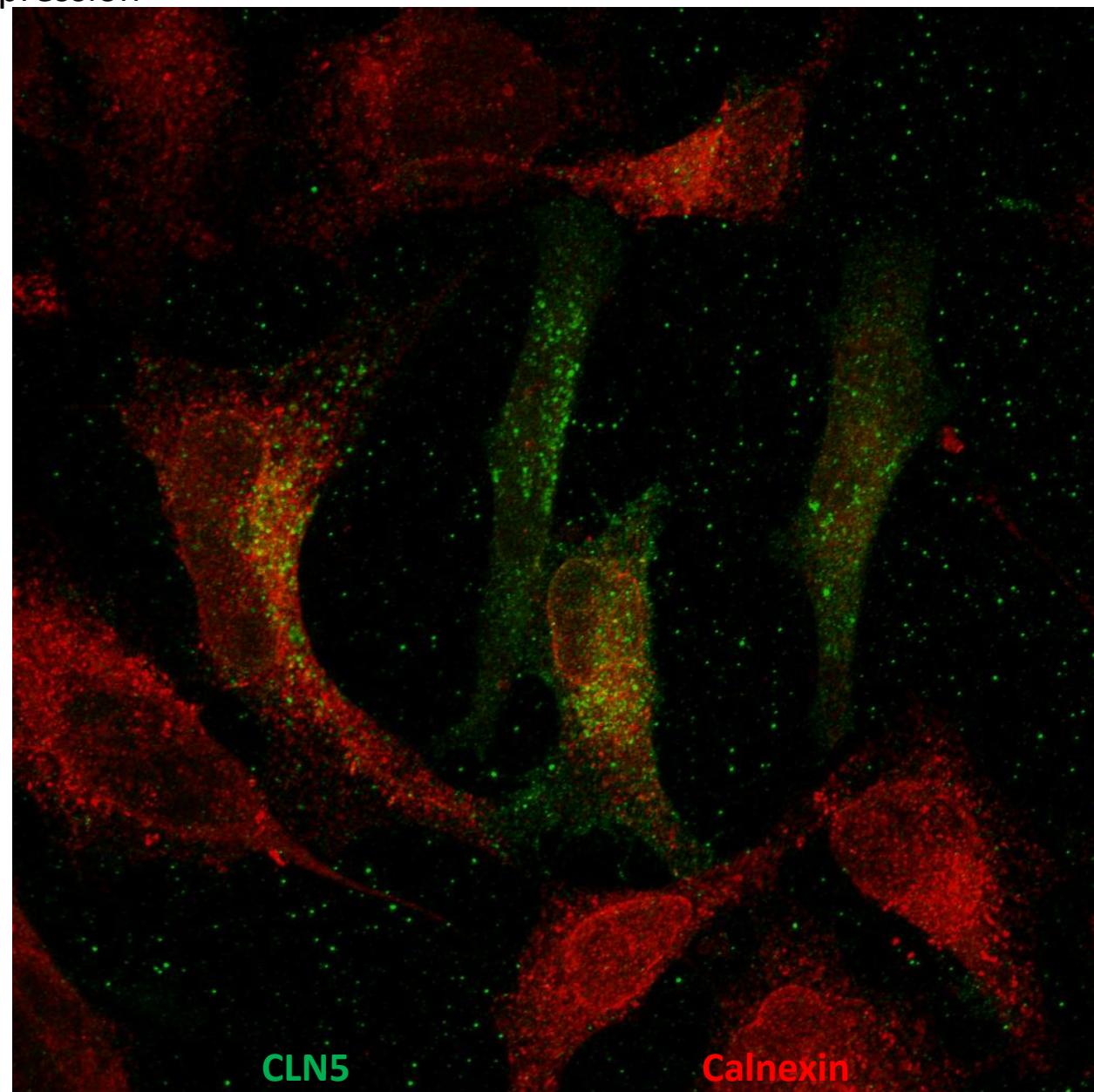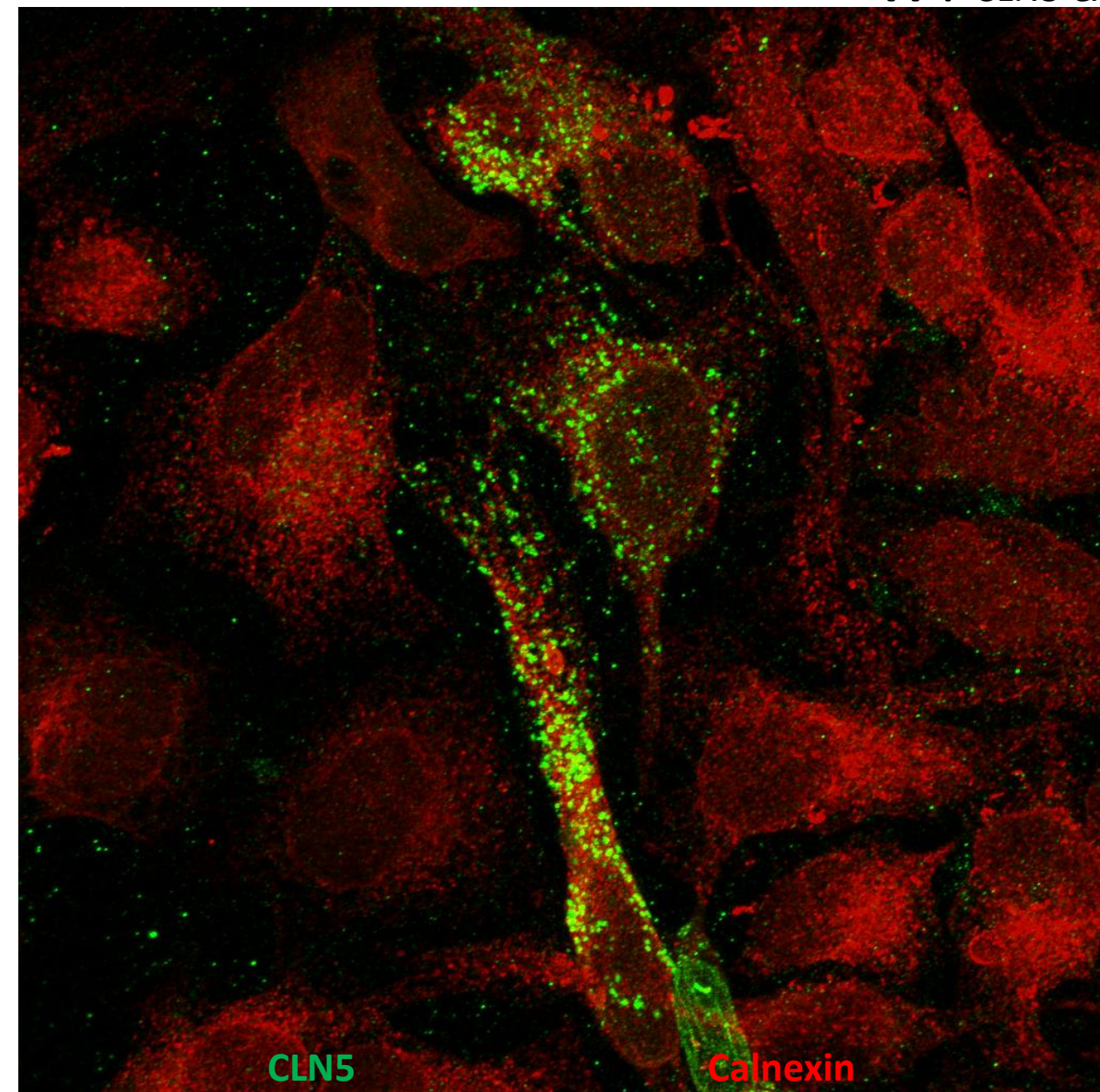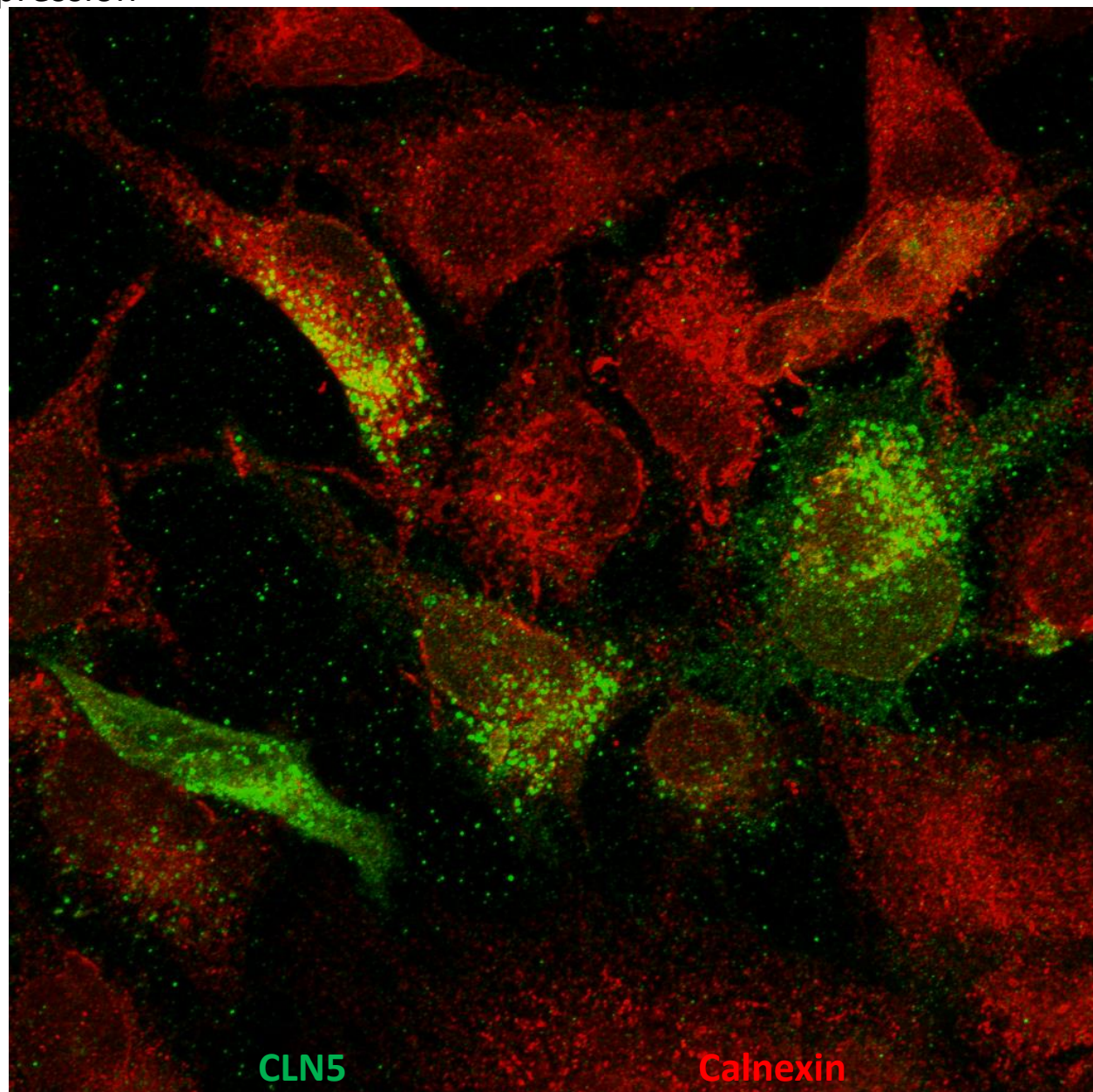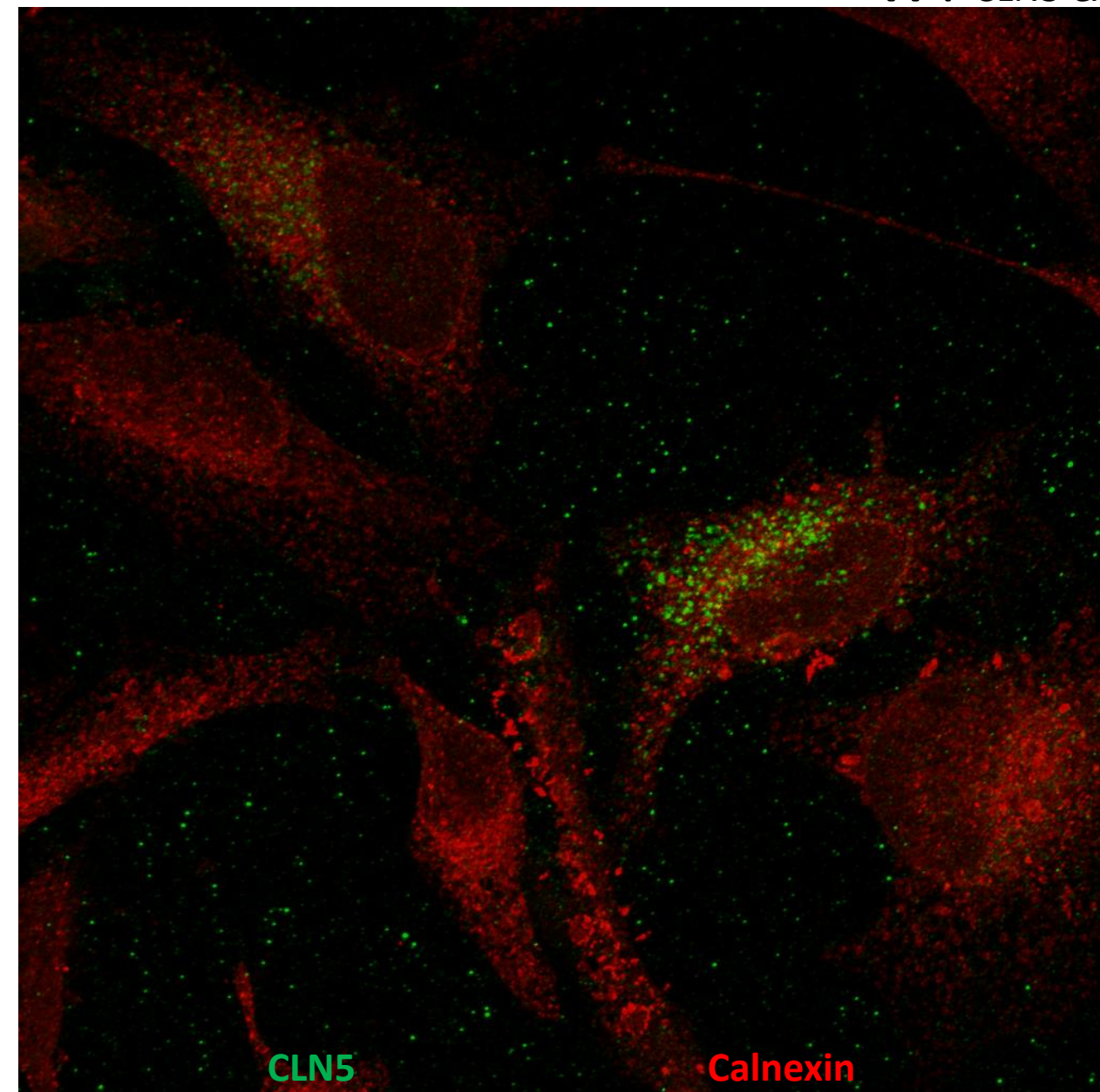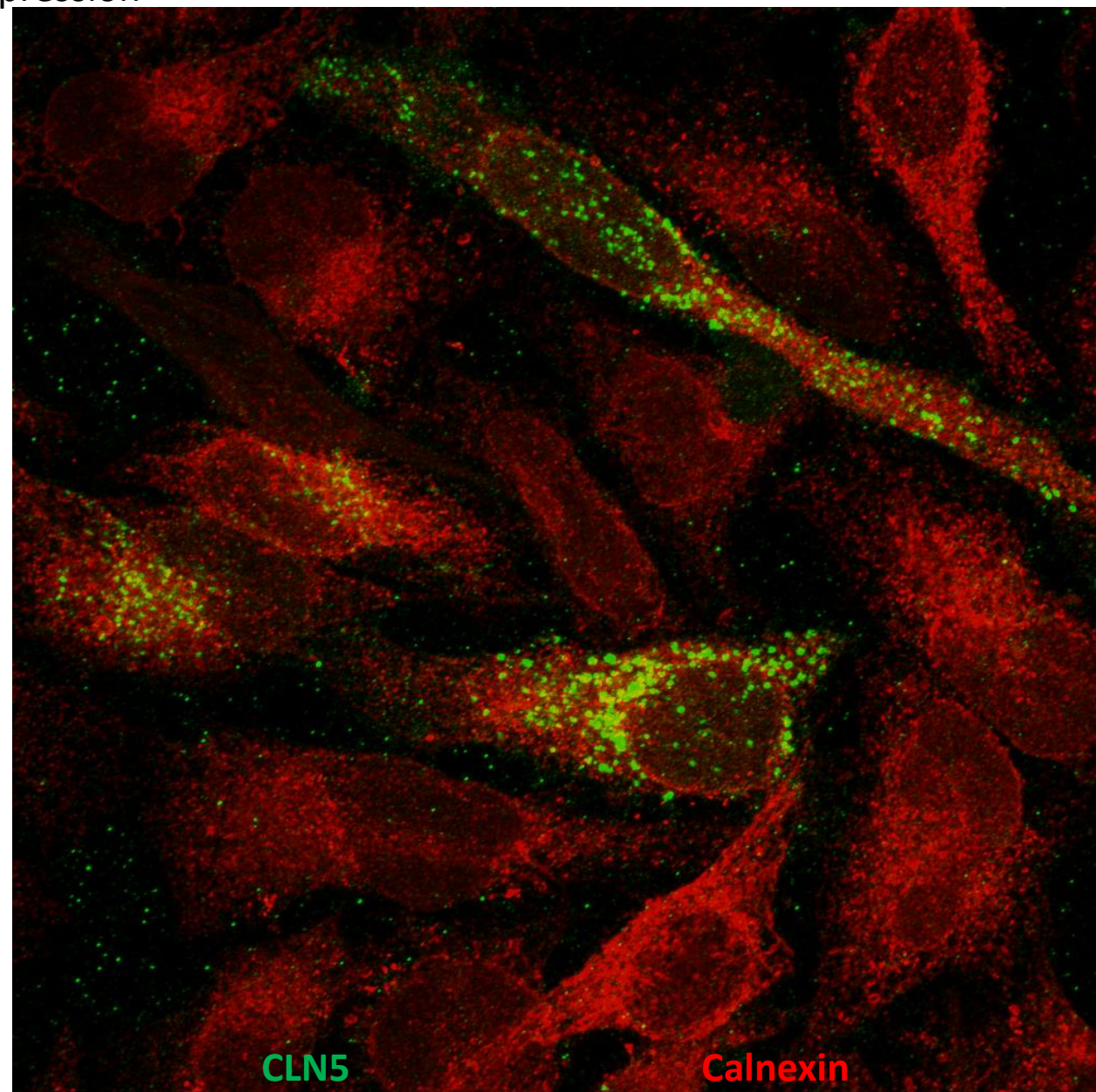
WT CLN5 expression
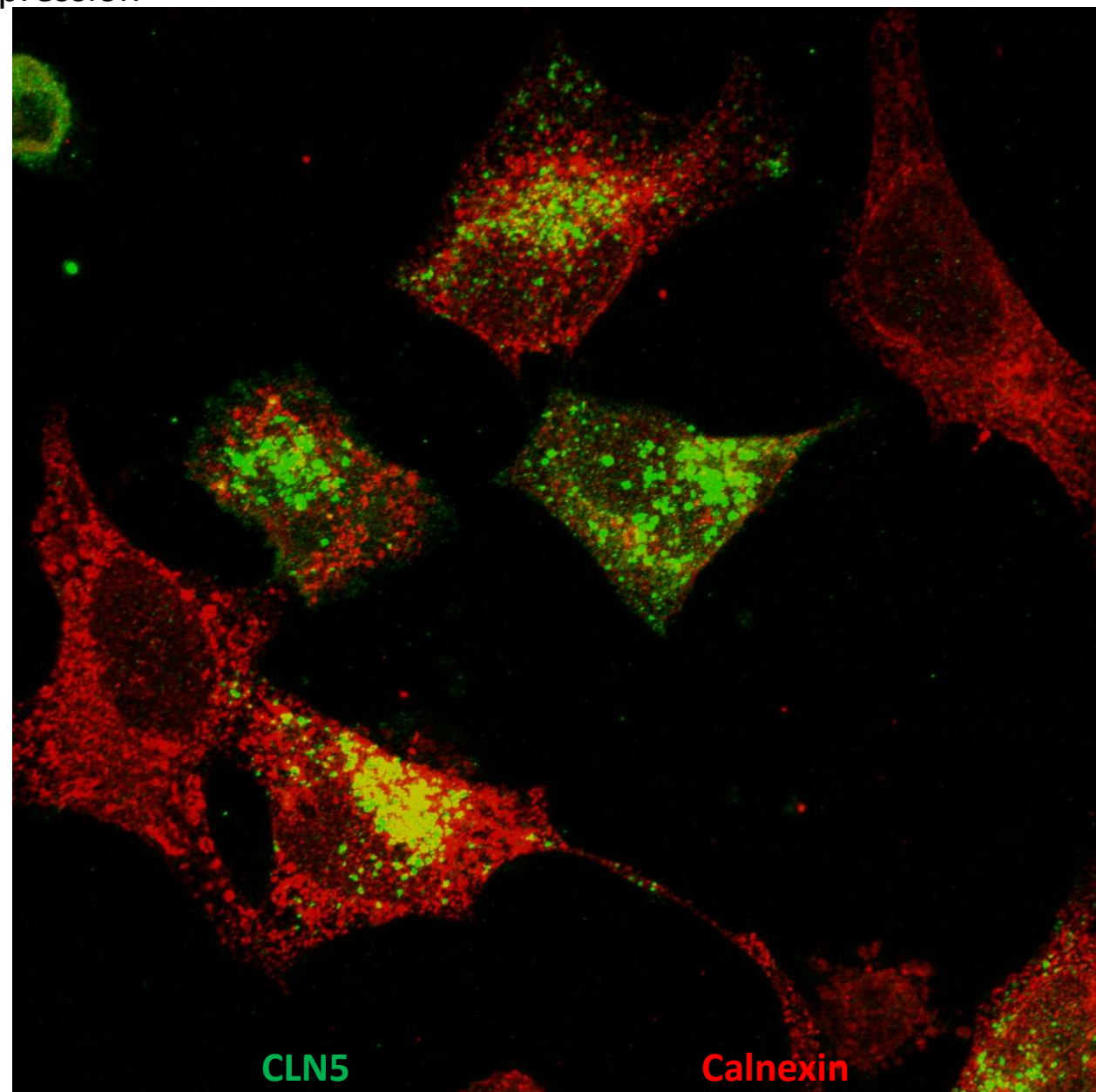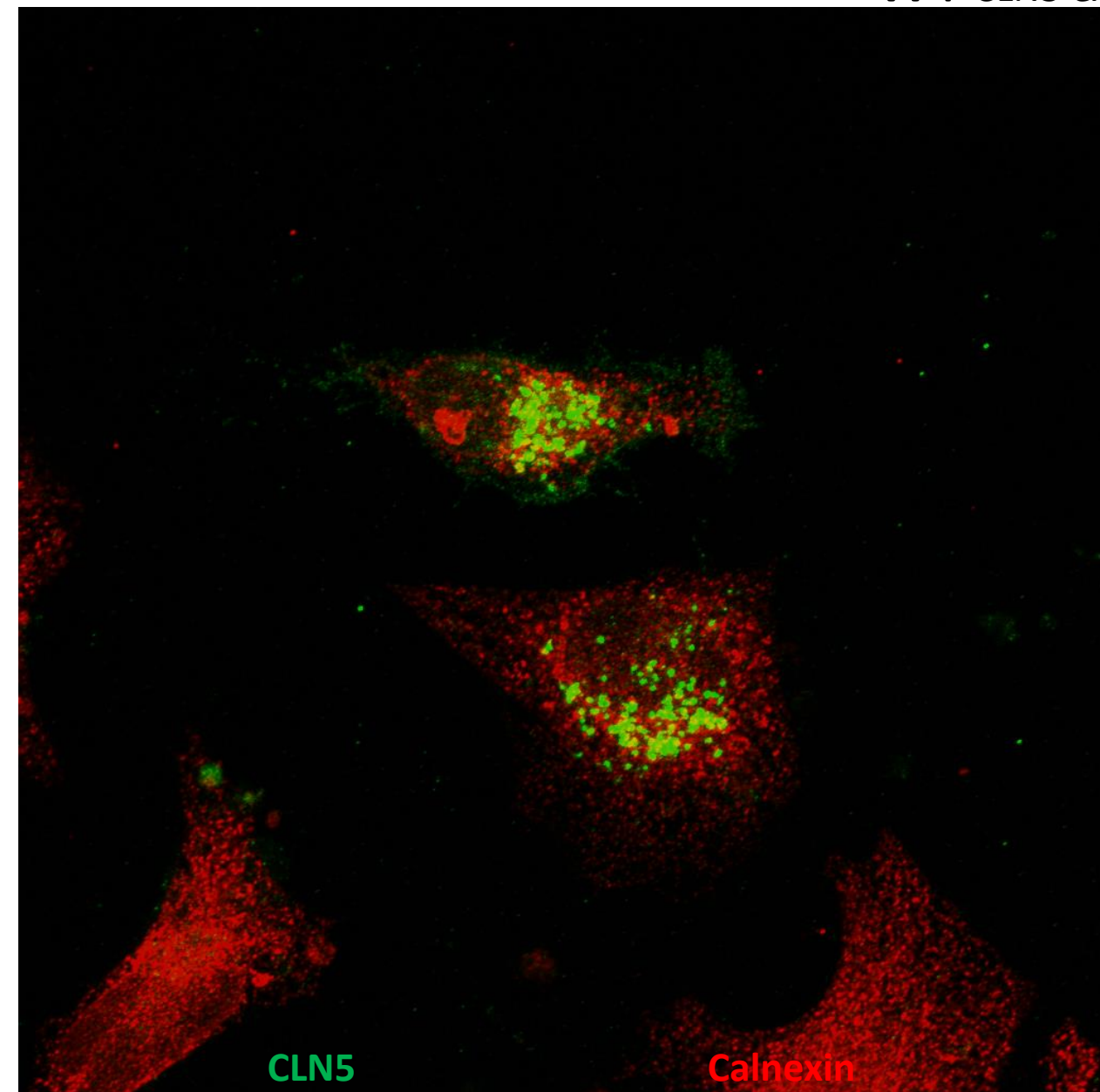
CLN5   Calnexin   CLN5   Calnexin
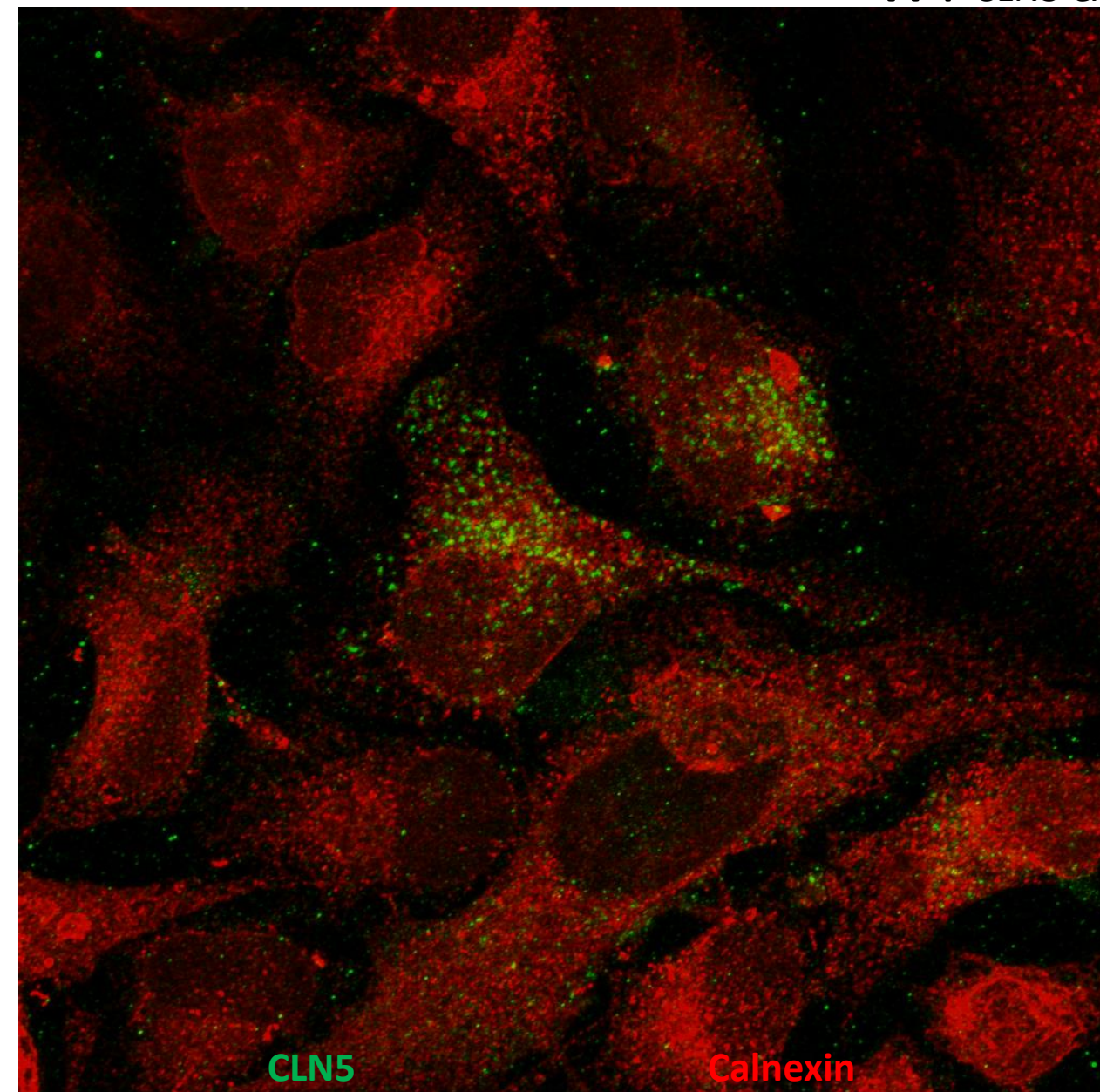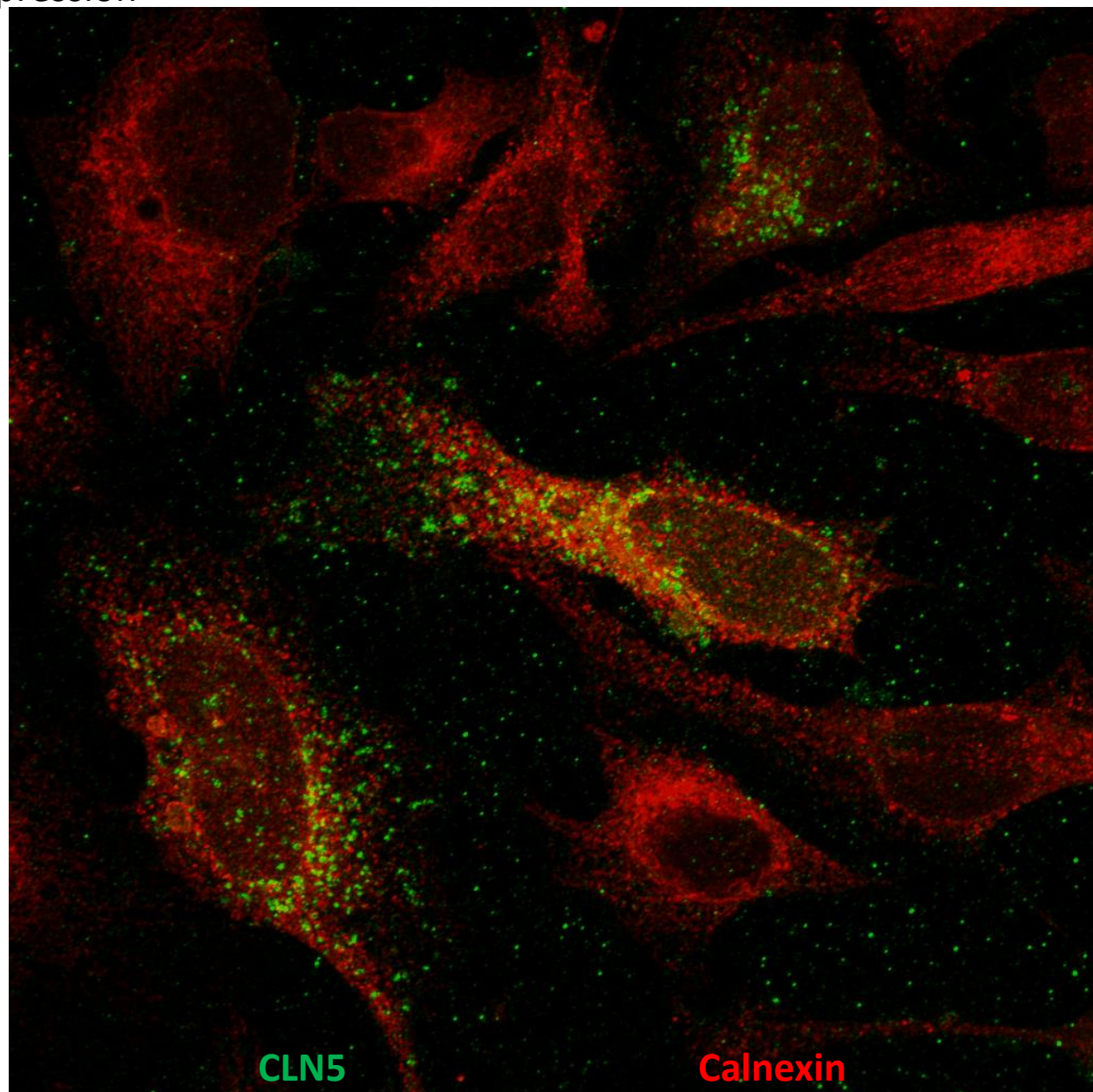
WT CLN5 expression

WT CLN5 expression

CLN5   Calnexin

CLN5   Calnexin

WT CLN5 expression

CLN5   Calnexin

CLN5   Calnexin

WT CLN5 expression

CLN5 Calnexin

CLN5 Calnexin

WT CLN5 expression

CLN5   Calnexin

CLN5   Calnexin

WT CLN5 expression
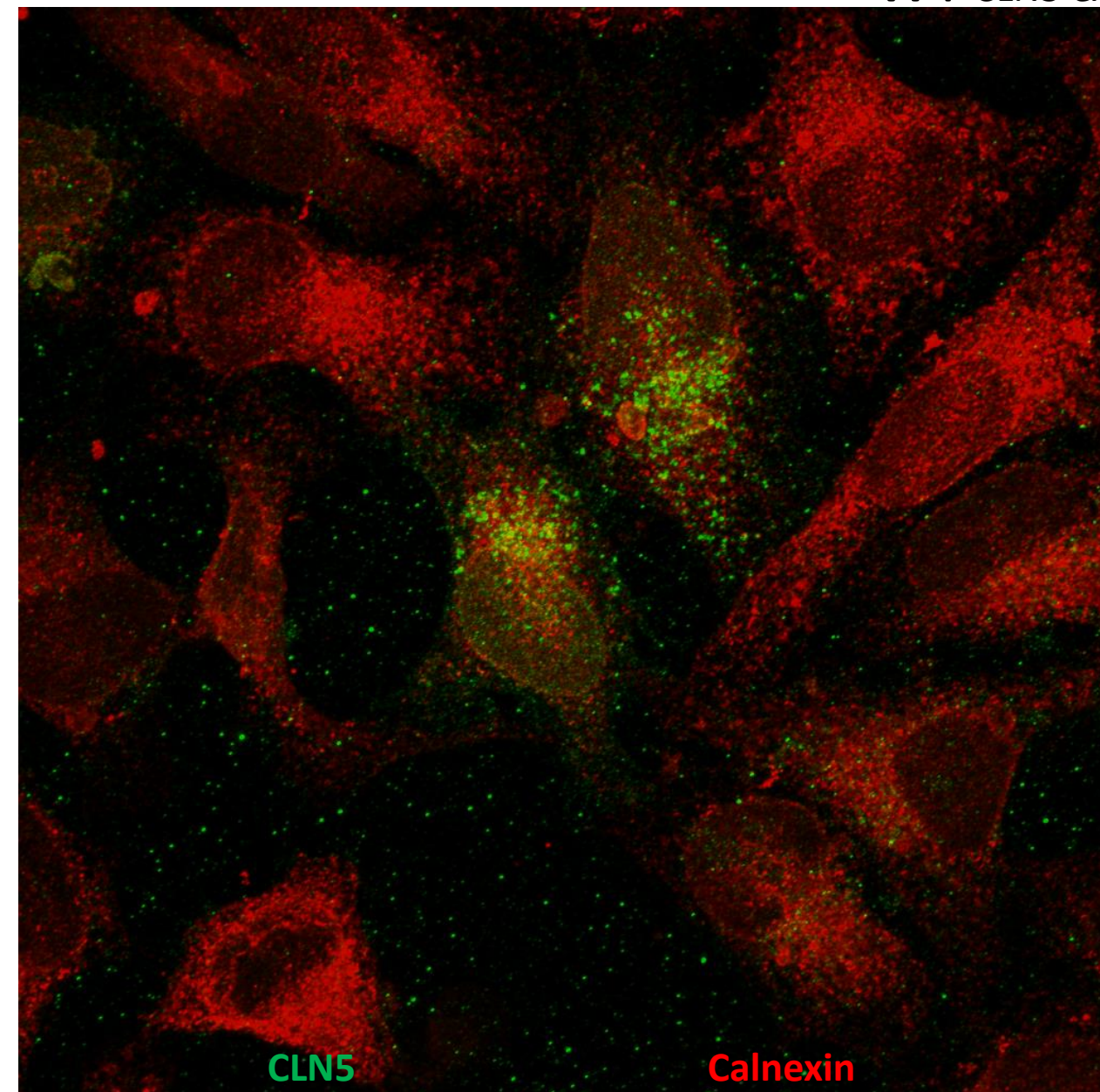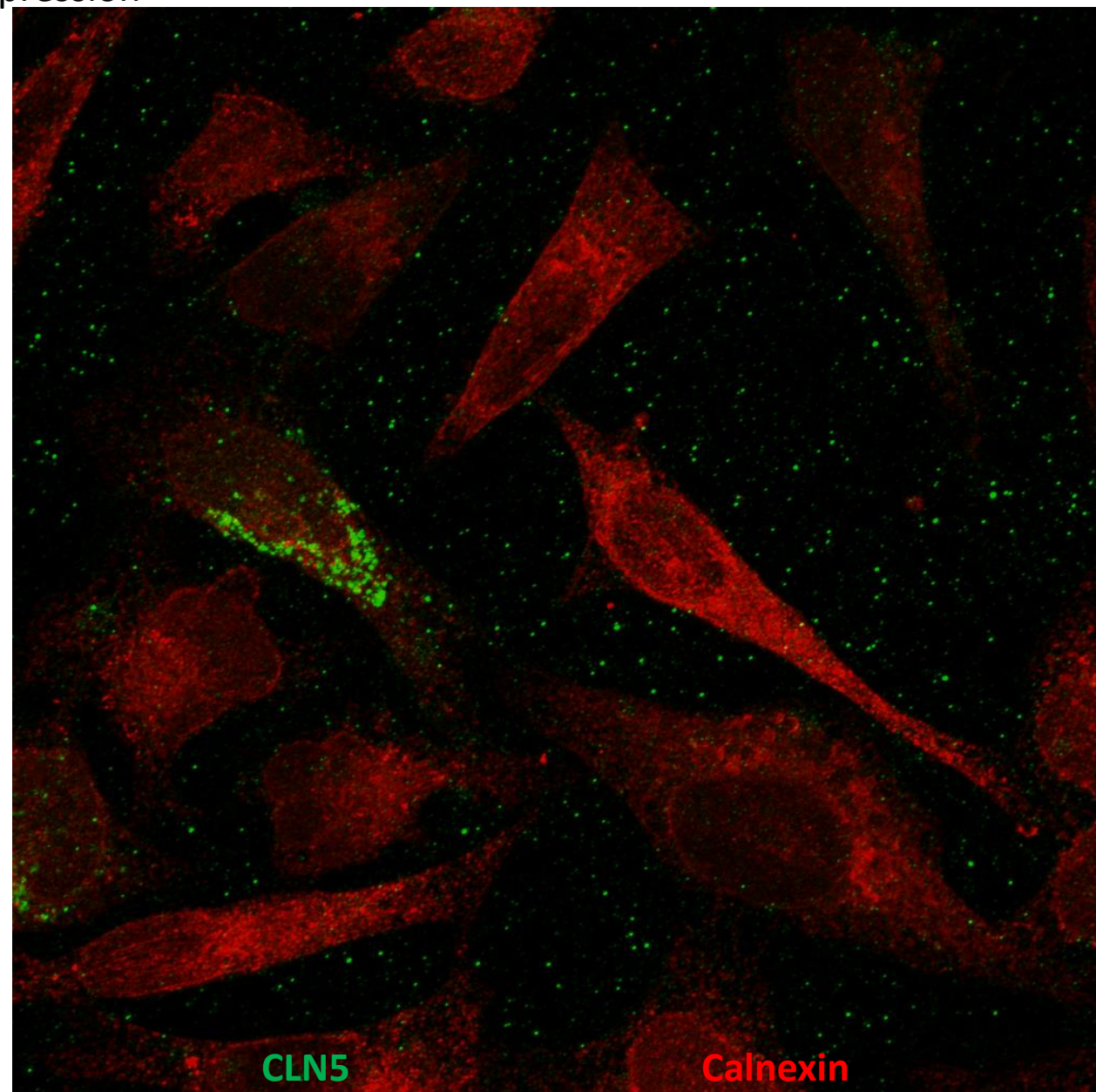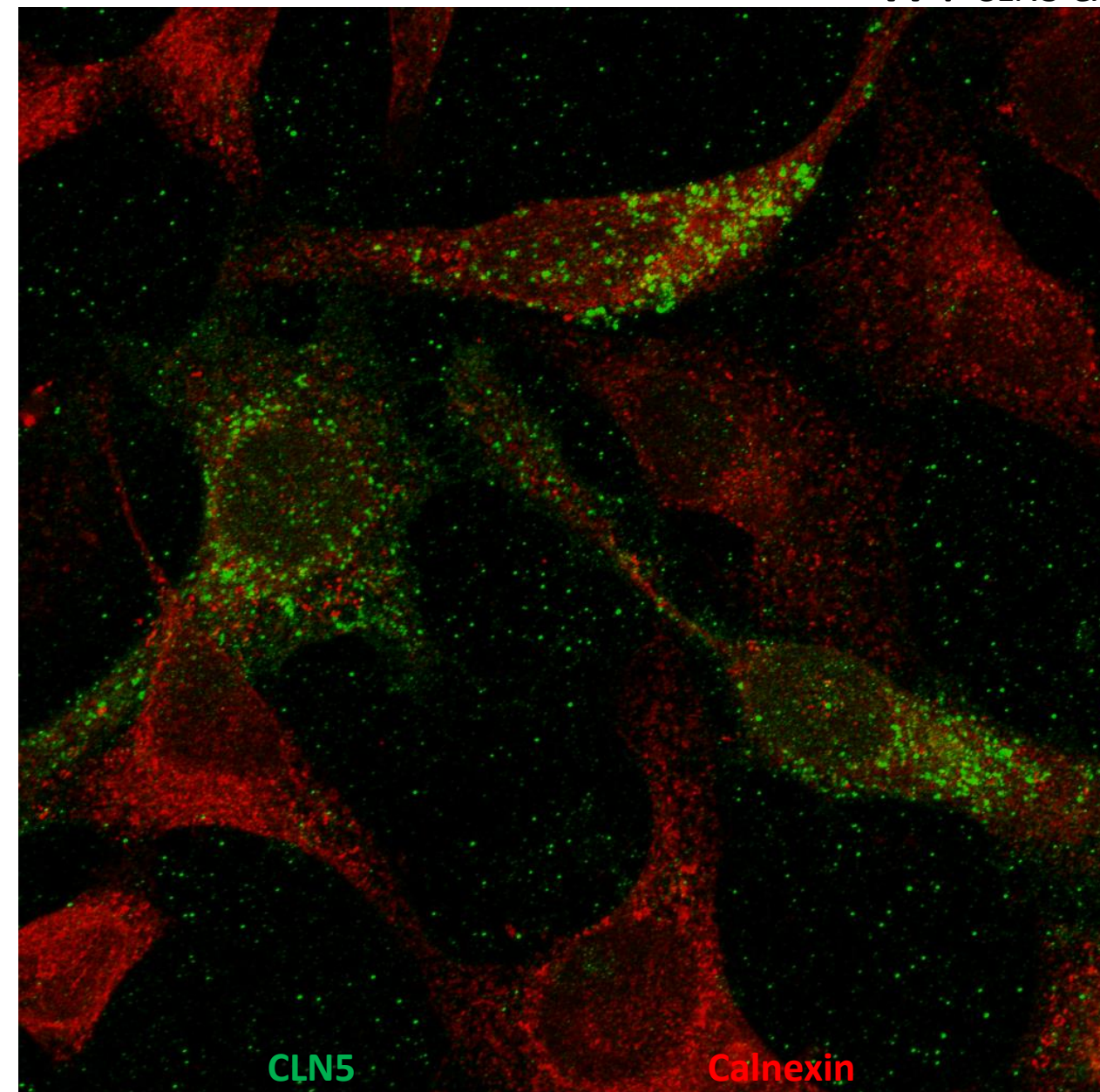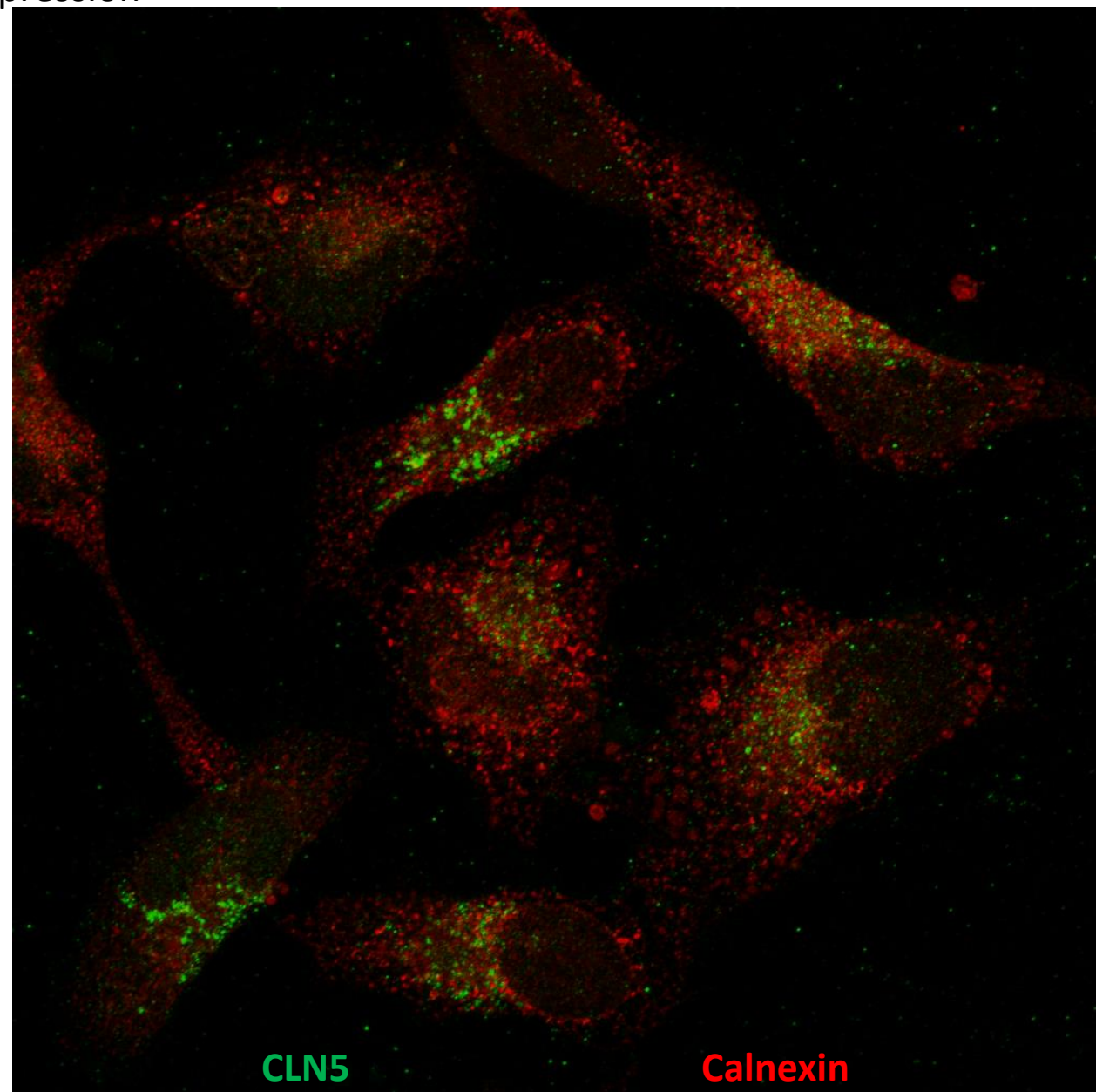
CLN5   Calnexin

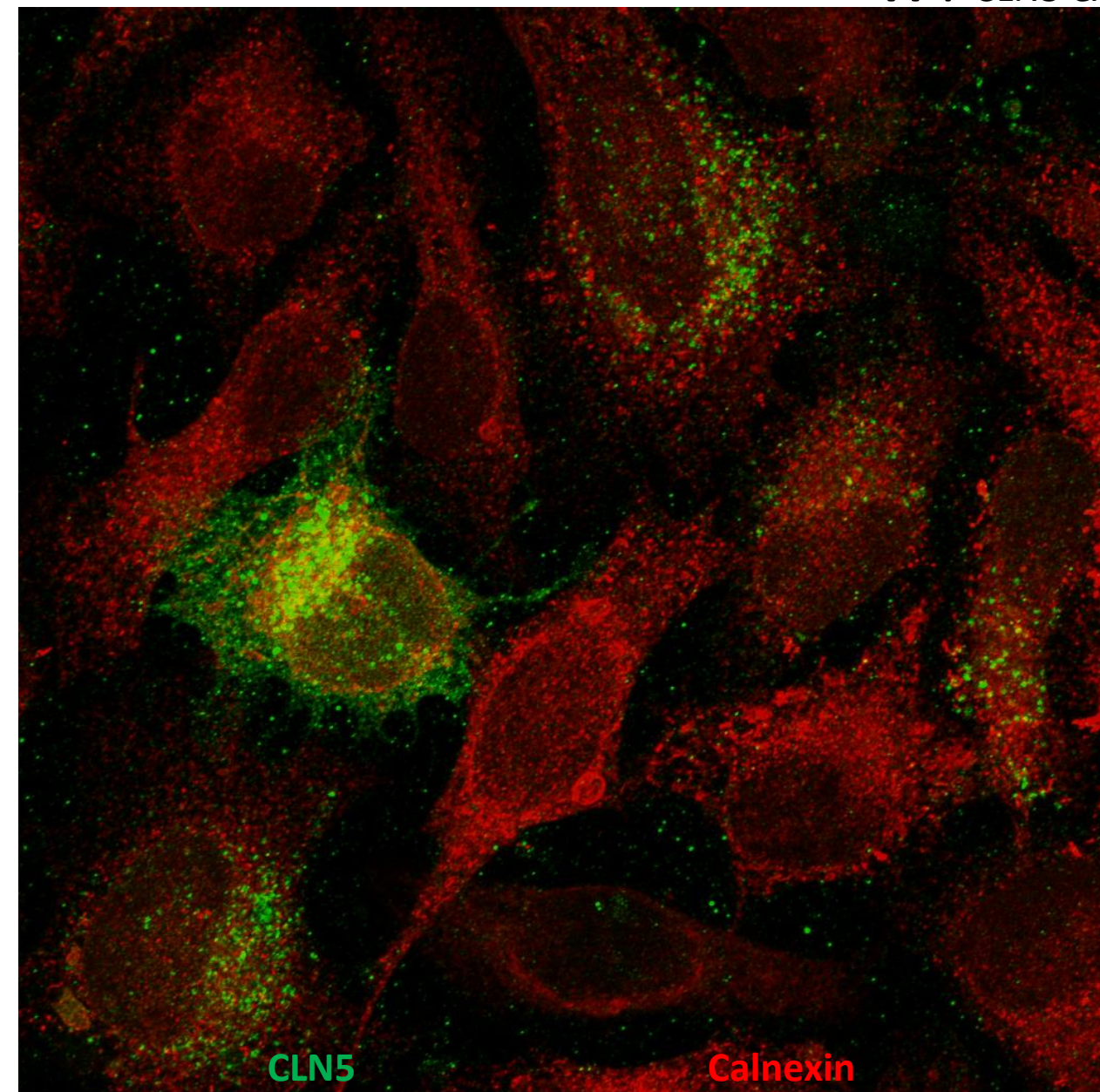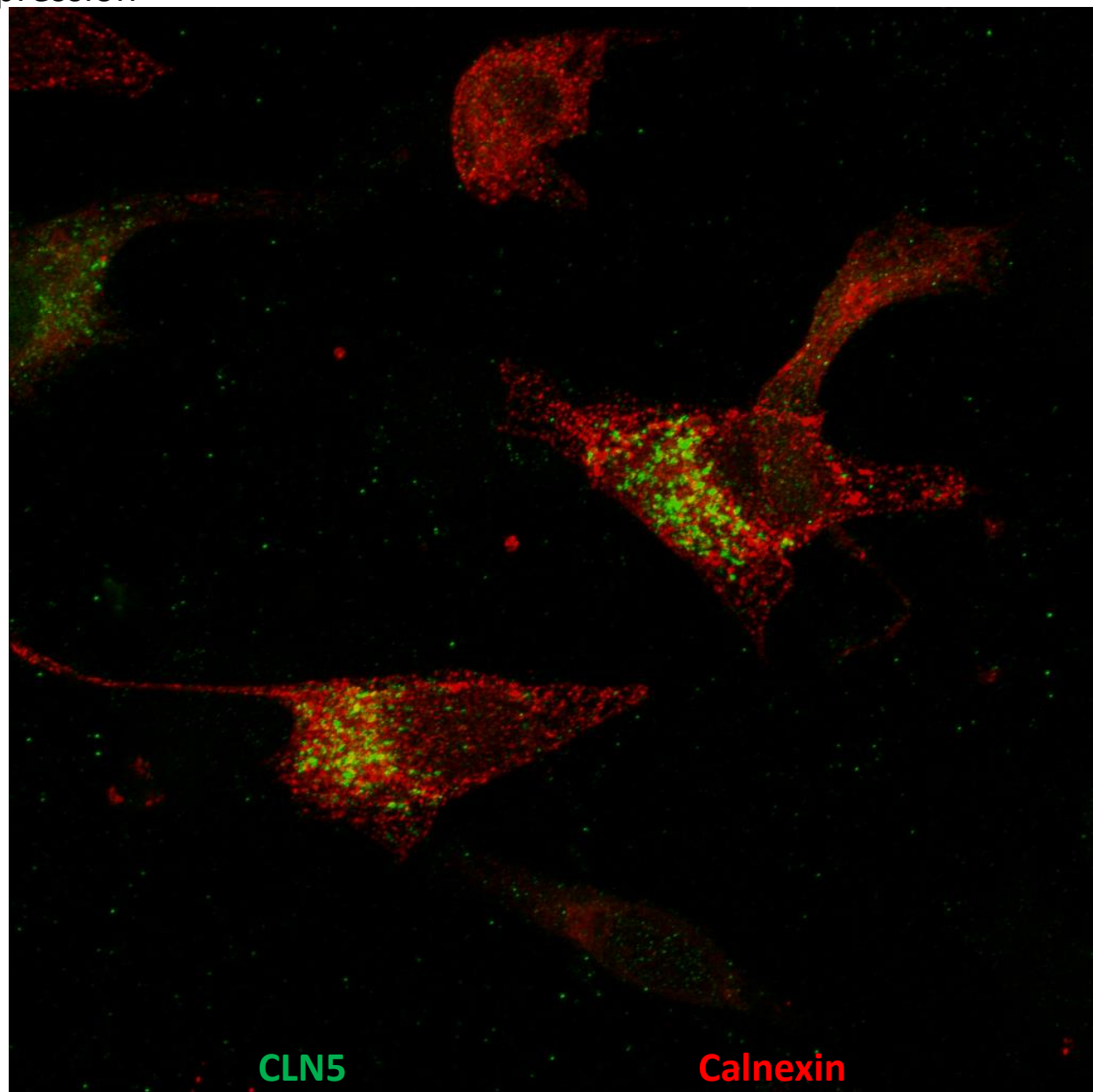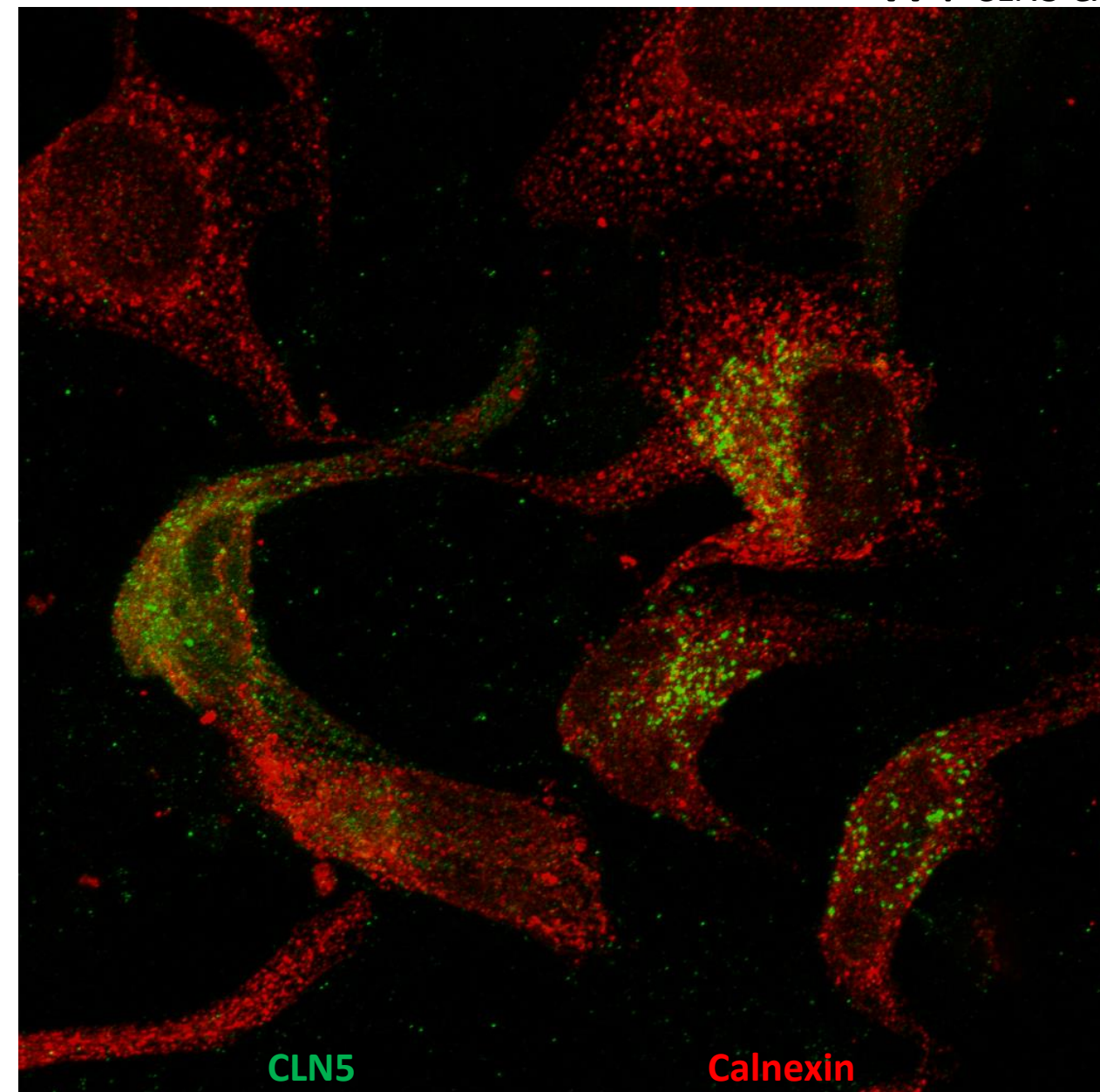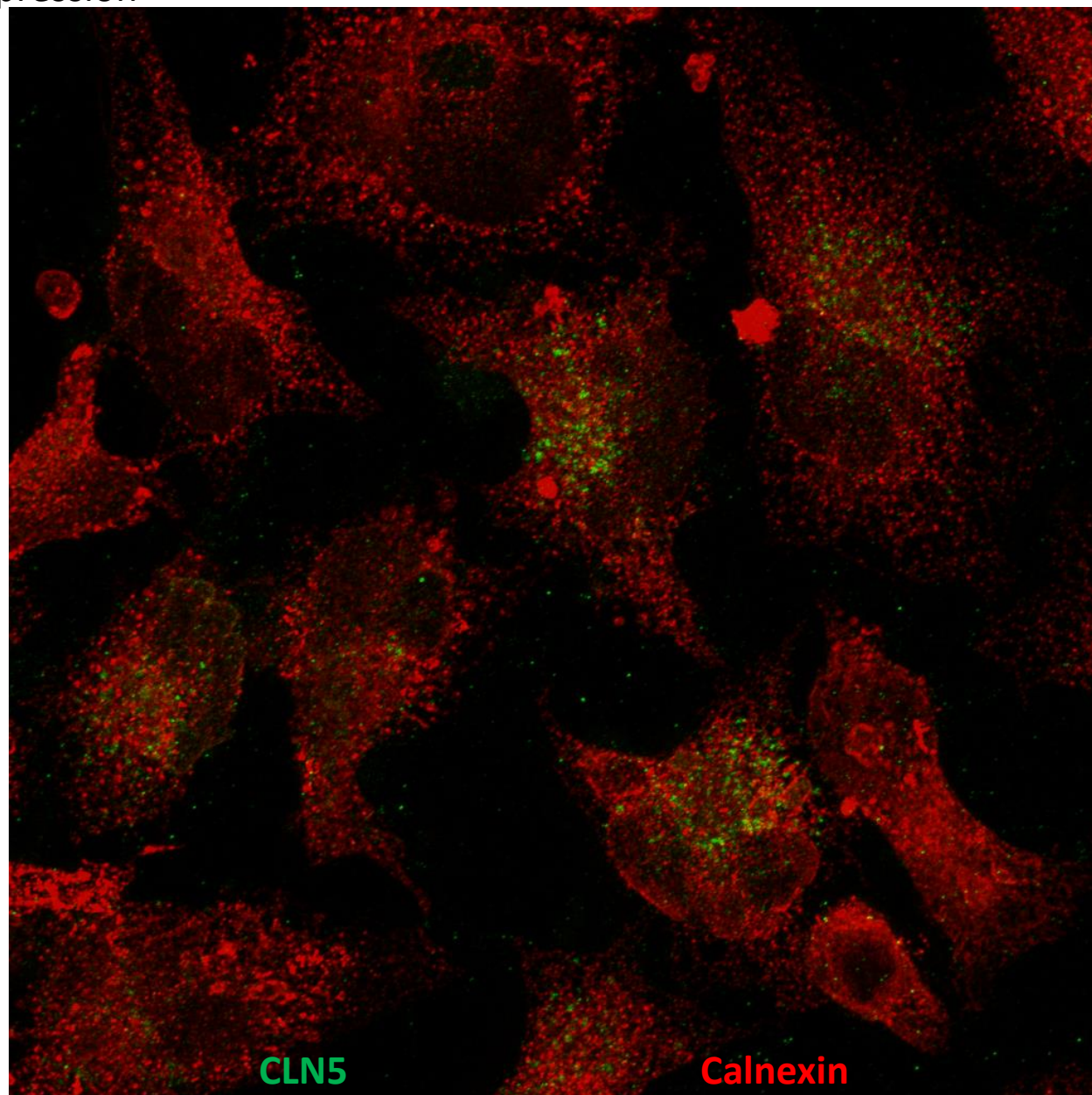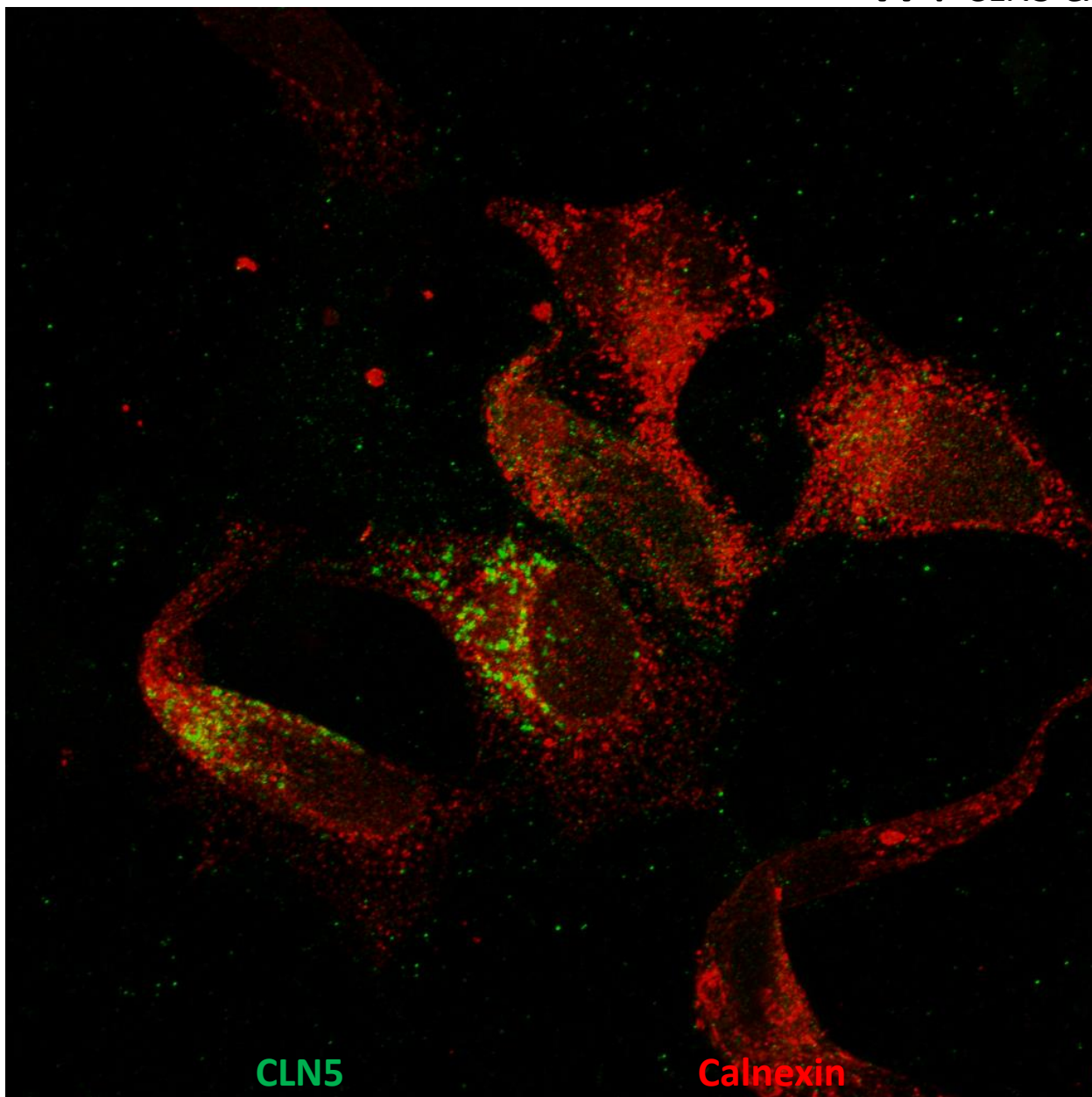CLN5   Calnexin

WT CLN5 expression

CLN5   Calnexin

CLN5   Calnexin

WT CLN5 expression

WT CLN5 expression

CLN5   Calnexin   CLN5   Calnexin

WT CLN5 expression

CLN5 Calnexin CLN5 Calnexin

WT CLN5 expression

CLN5   Calnexin

CLN5   Calnexin

WT CLN5 expression

CLN5 Calnexin CLN5 Calnexin

WT CLN5 expression

CLN5   Calnexin

CLN5   Calnexin

WT CLN5 expression

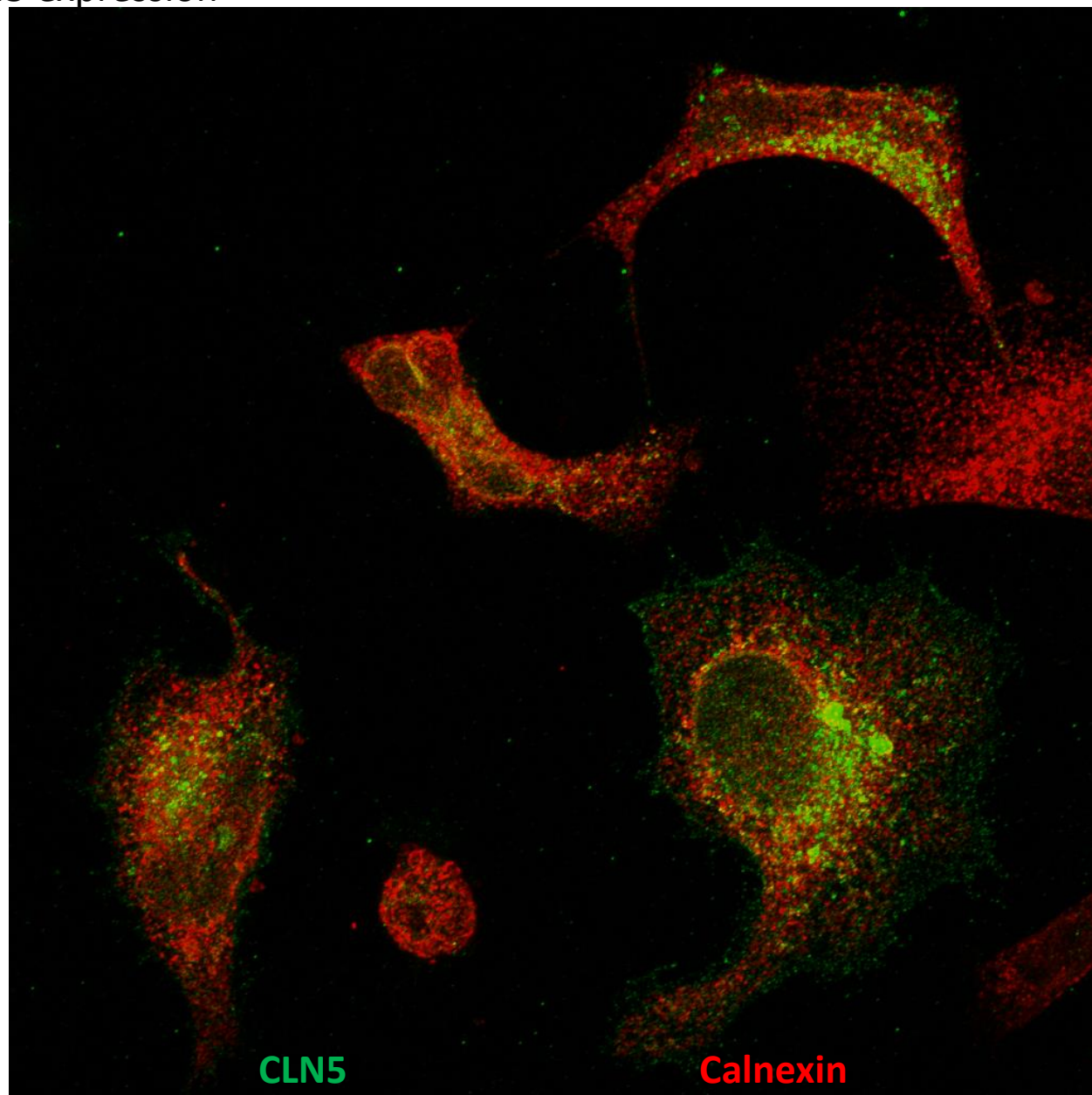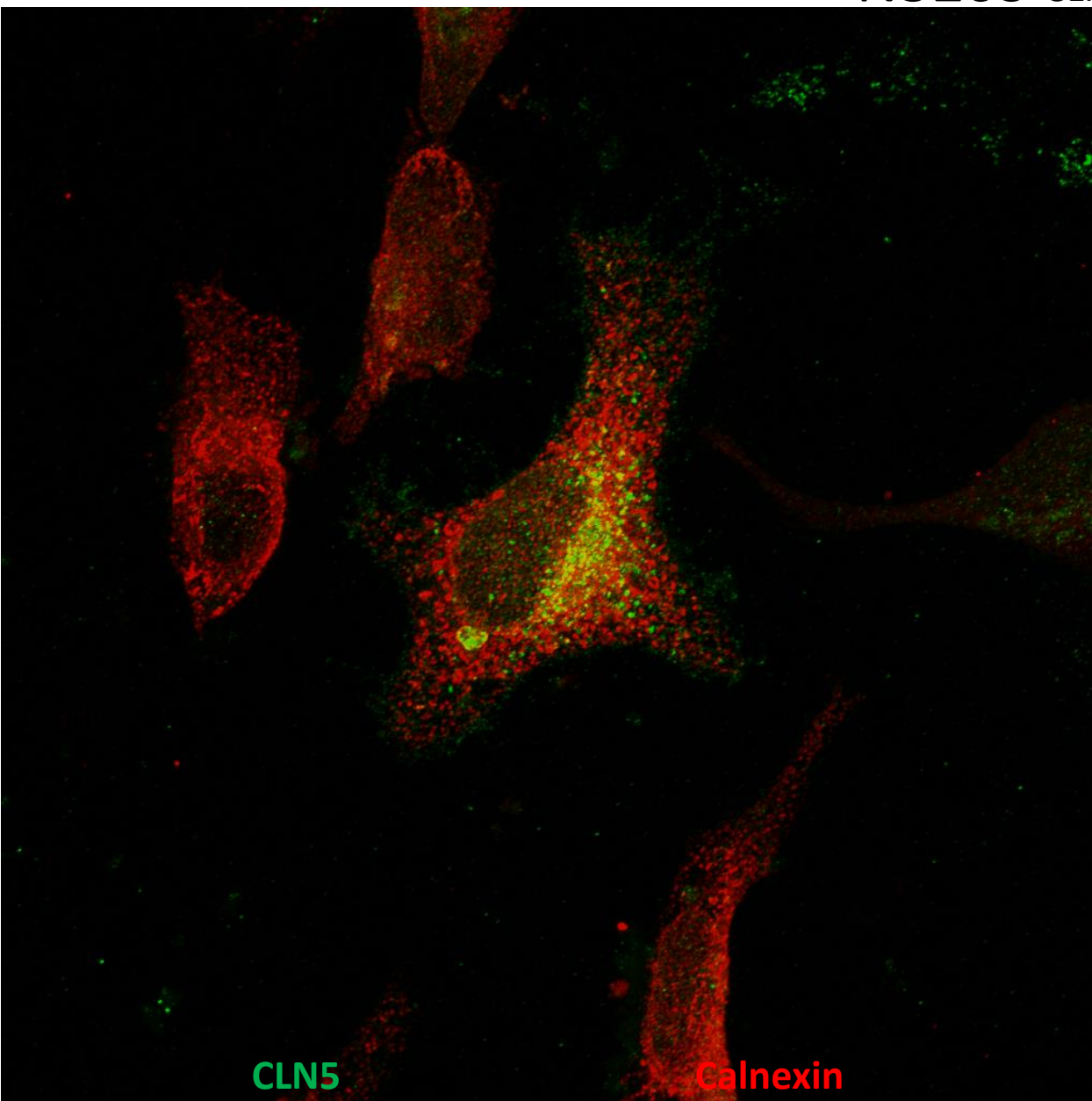CLN5   Calnexin   CLN5   Calnexin
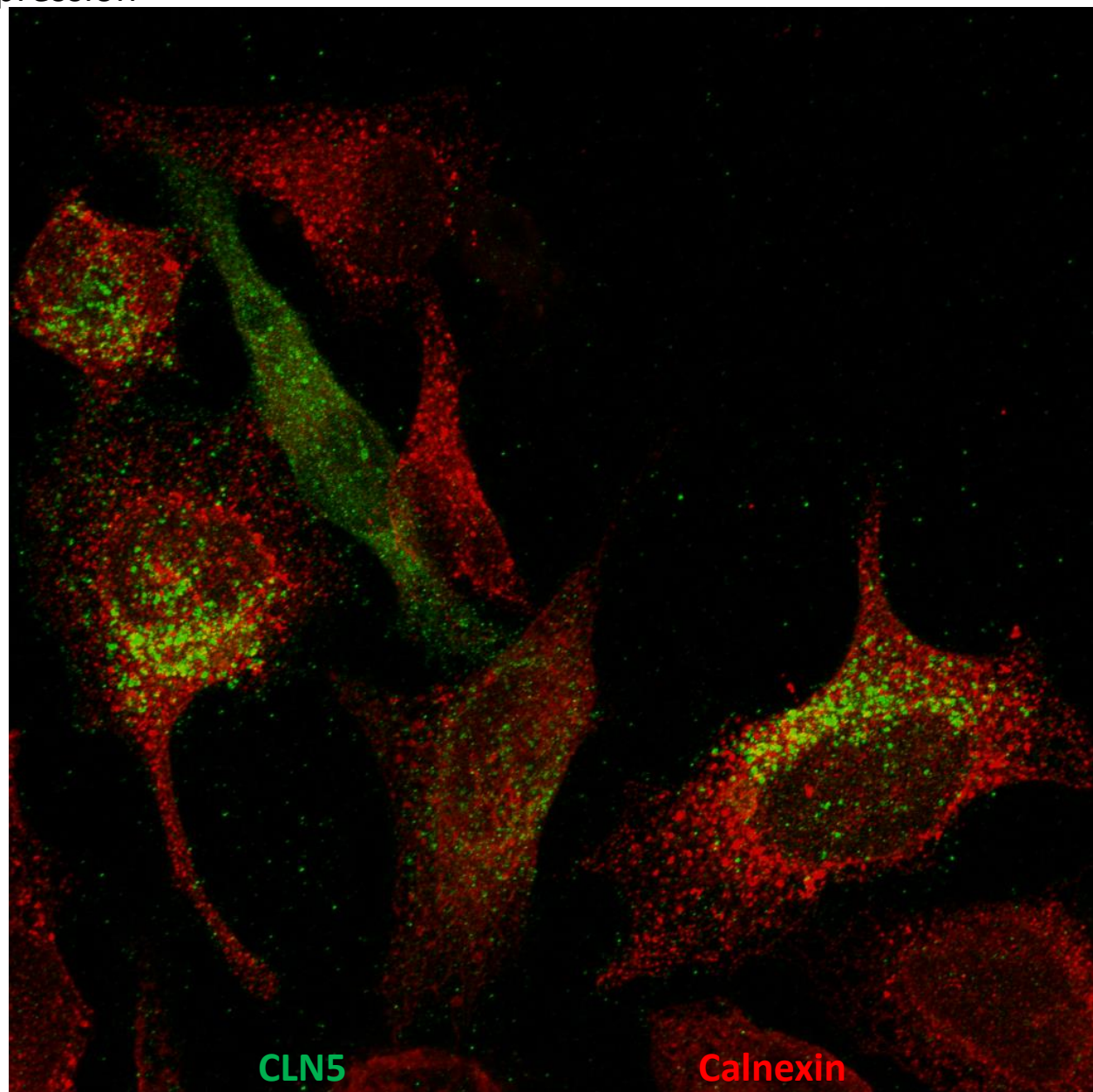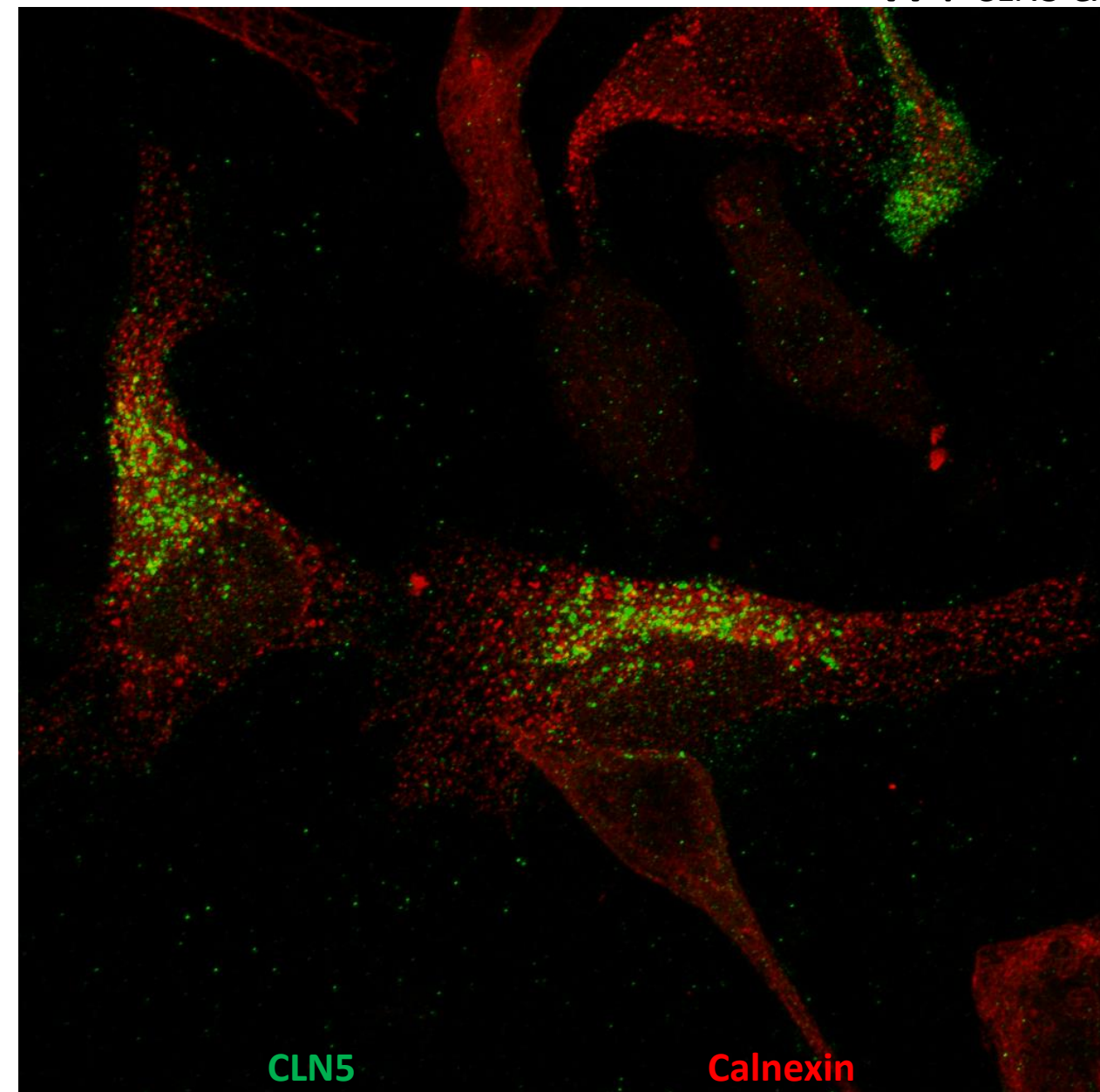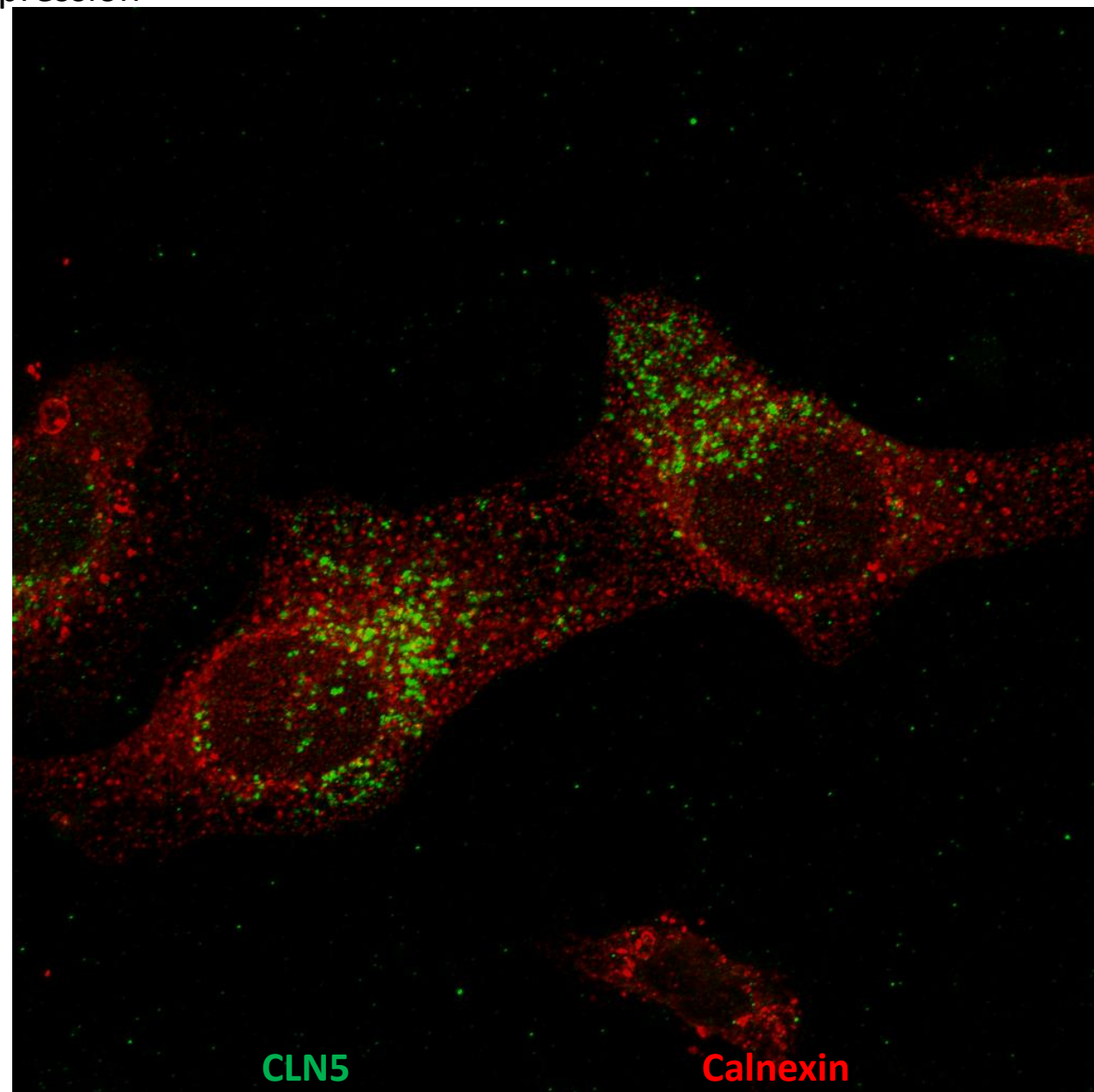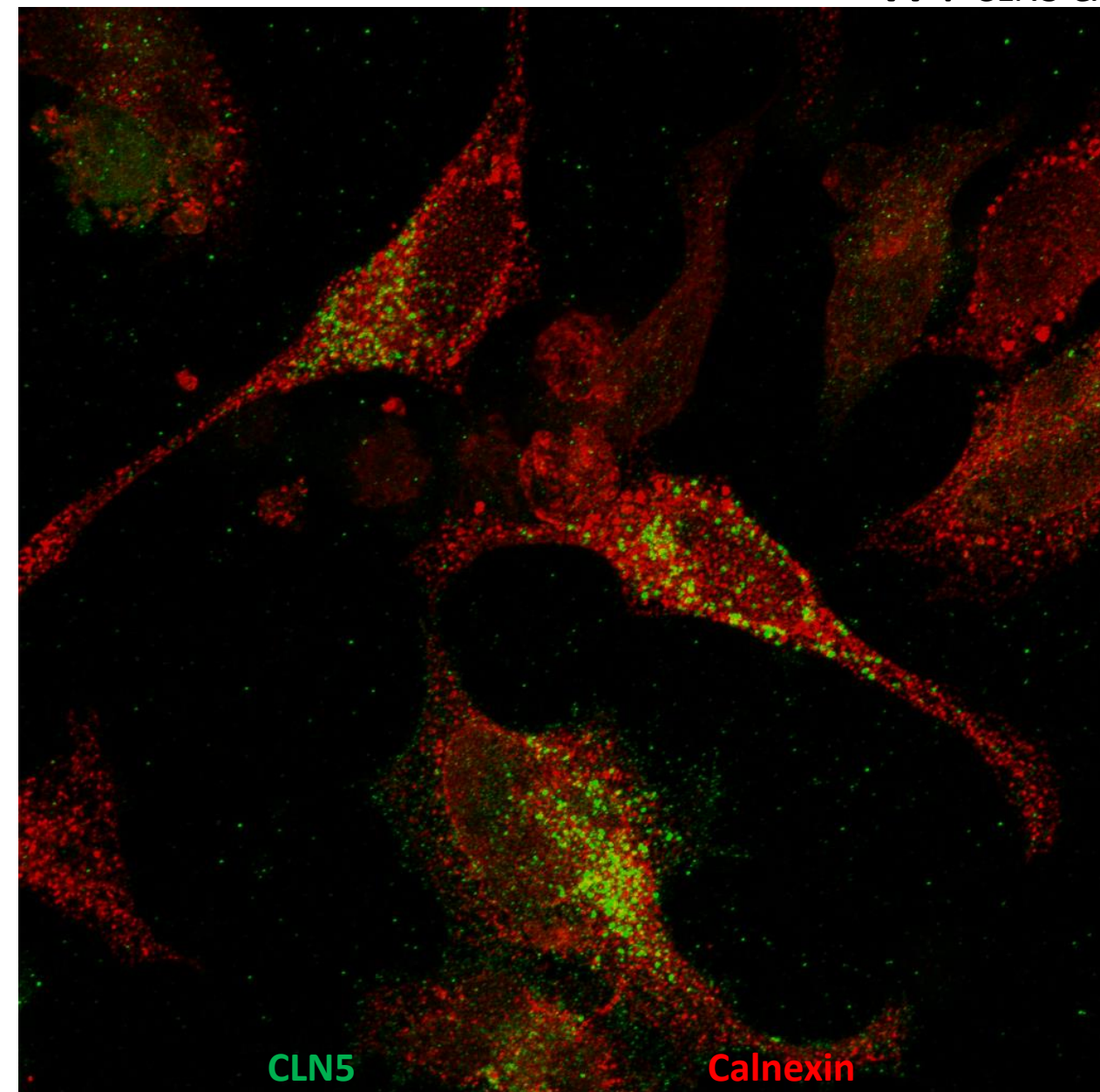
WT CLN5 expression

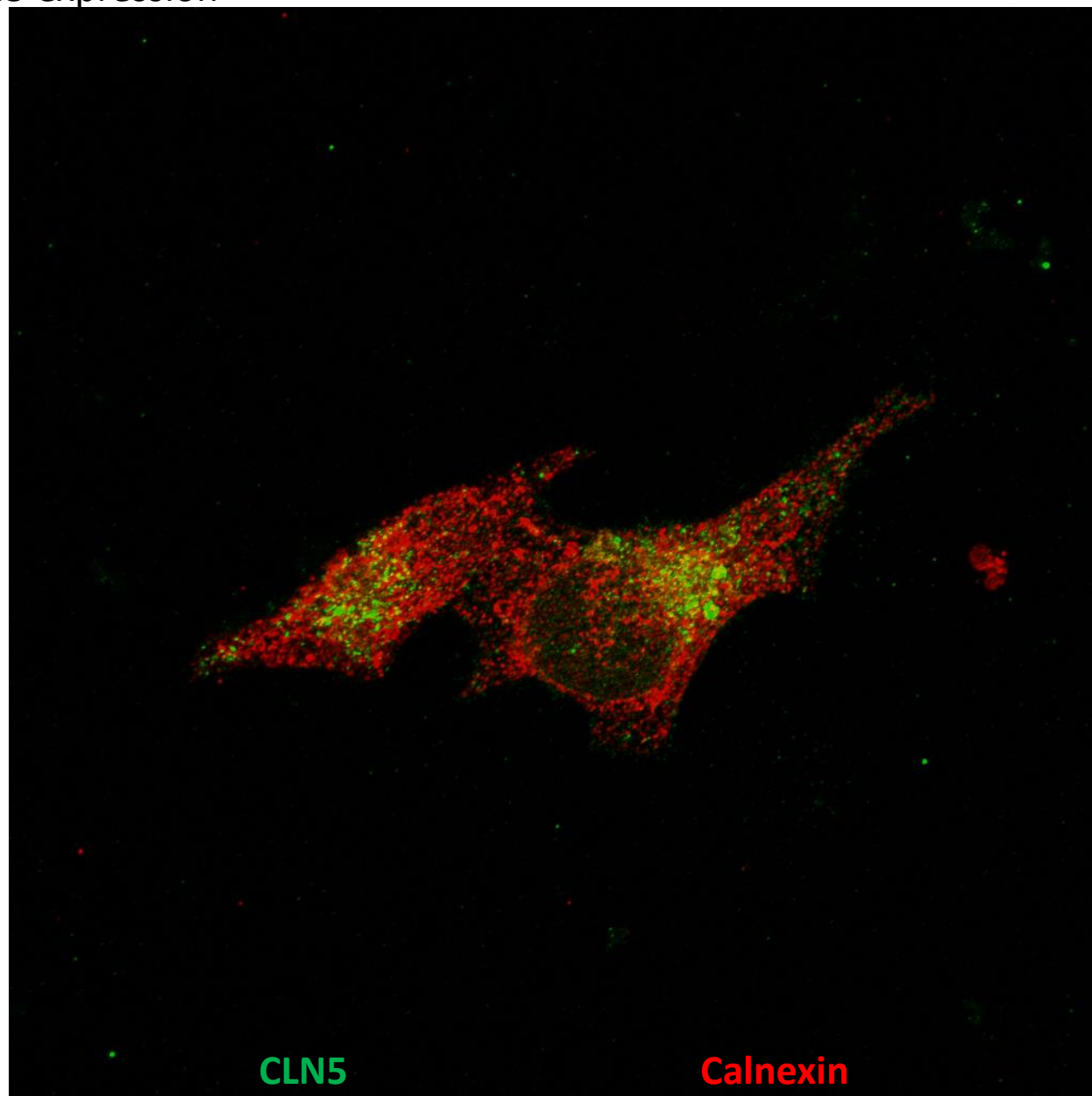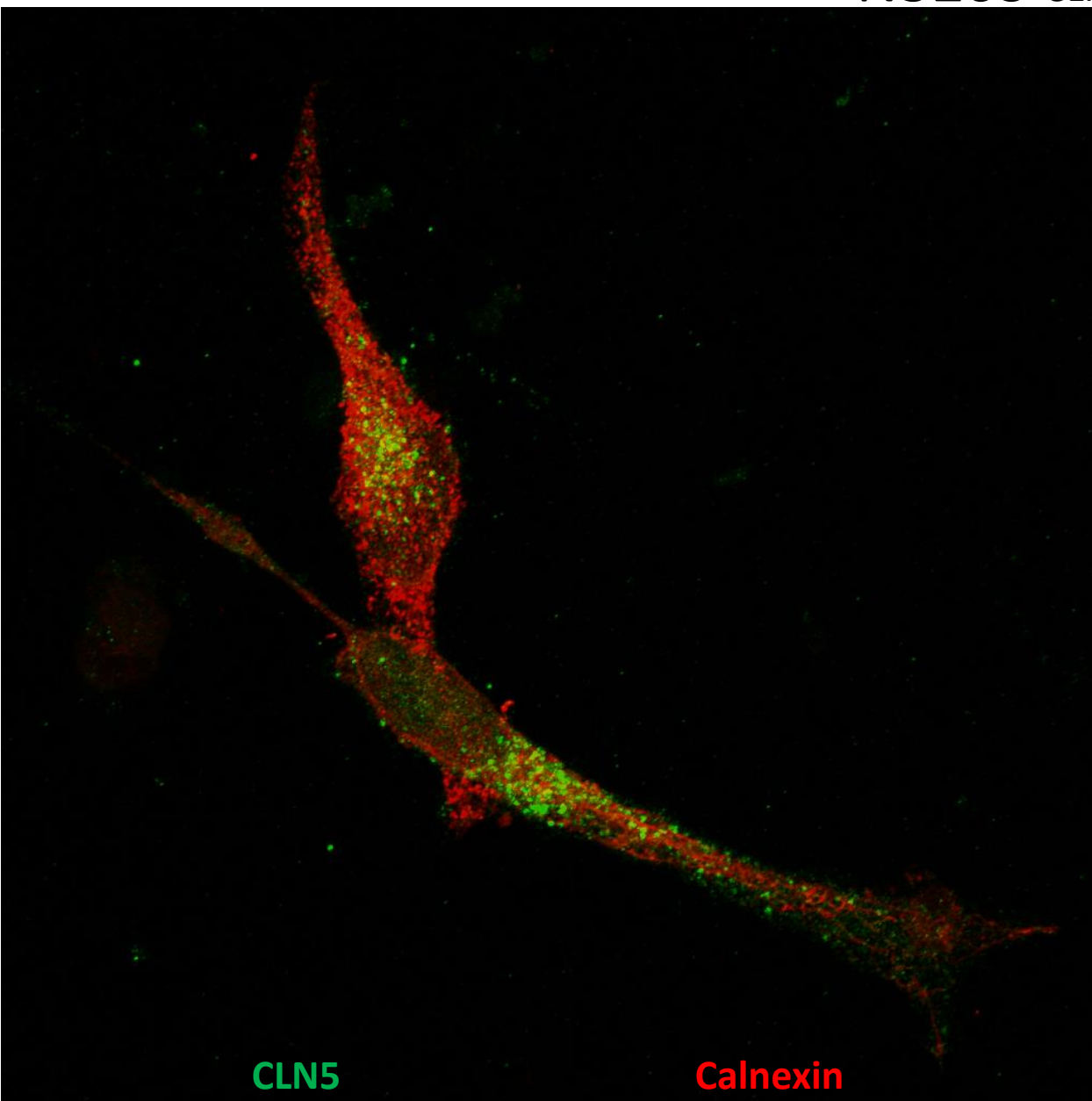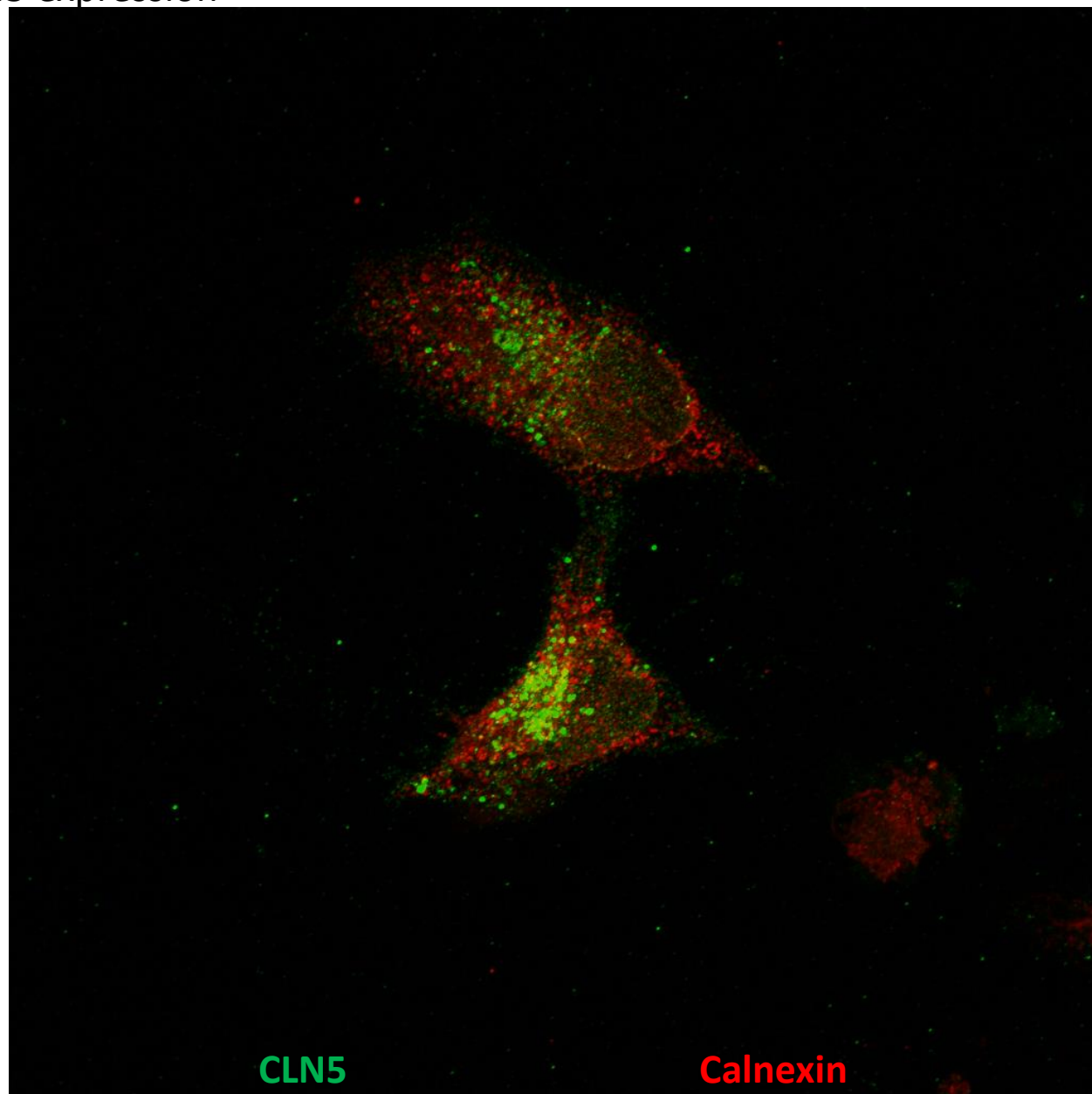# N320S CLN5 expression and co-localization with ER marker Calnexin

N320S CLN5 expression

CLN5   Calnexin   CLN5   Calnexin

N320S CLN5 expression

CLN5   Calnexin   CLN5   Calnexin

N320S CLN5 expression

CLN5   Calnexin   CLN5   Calnexin

![N320S CLN5 expression. Confocal immunofluorescence microscopy showing two panels. CLN5 is labeled in green and Calnexin in red, with regions of overlap appearing yellow.](image)

N320S CLN5 expression

CLN5   Calnexin   CLN5   Calnexin

N320S CLN5 expression

CLN5 **Calnexin** **CLN5** **Calnexin**

N320S CLN5 expression

CLN5   Calnexin

CLN5   Calnexin

N320S CLN5 expression

CLN5   Calnexin   CLN5   Calnexin

N320S CLN5 expression

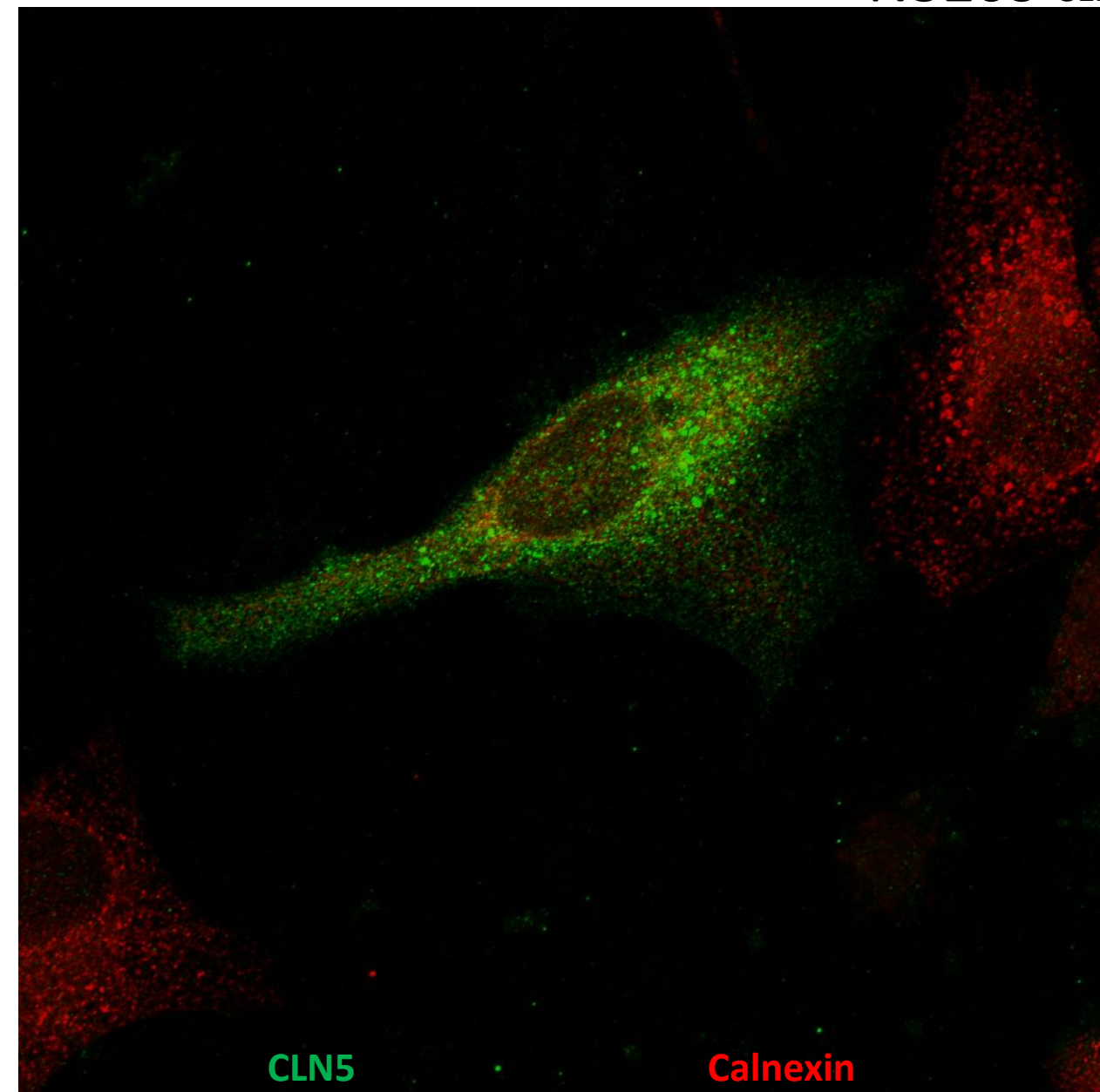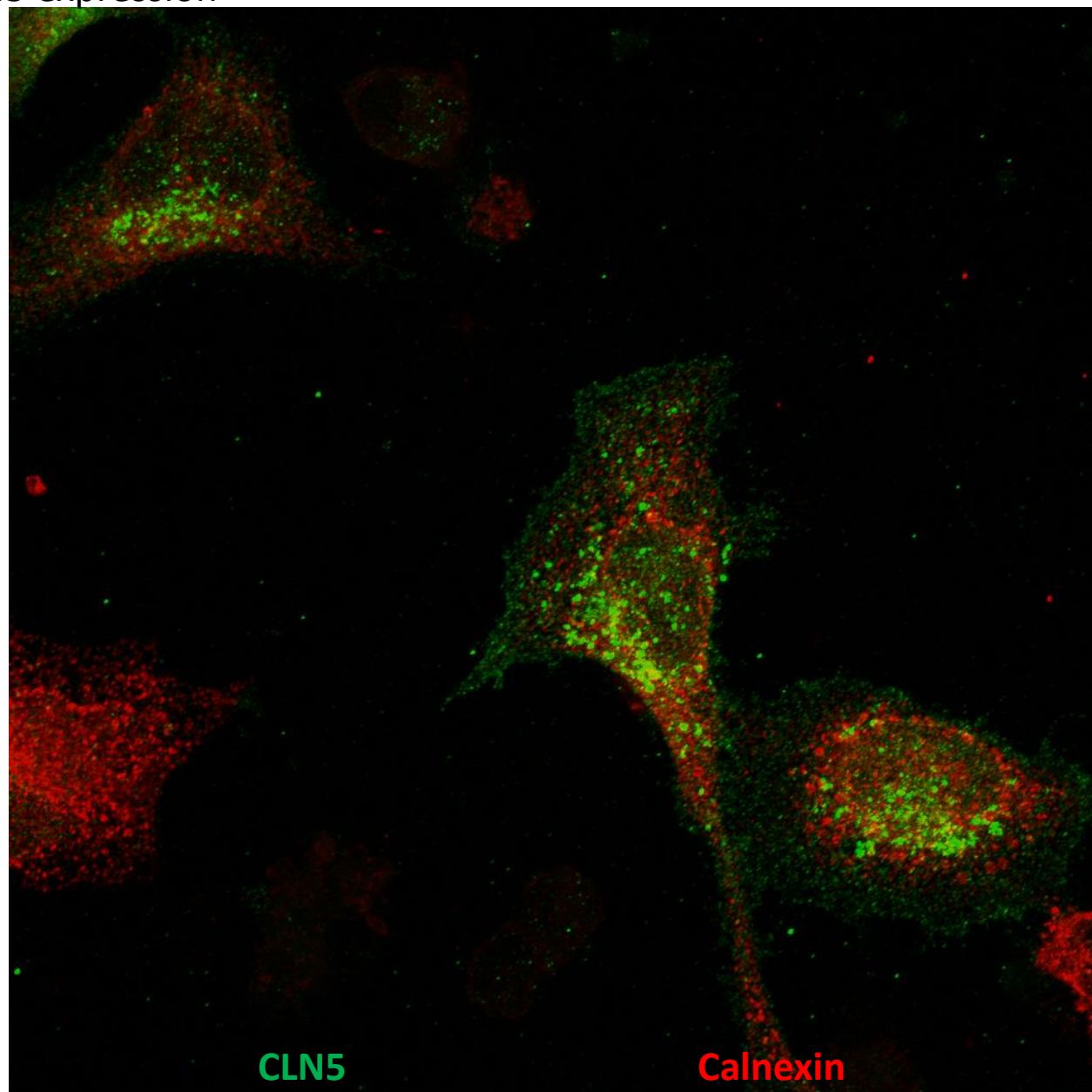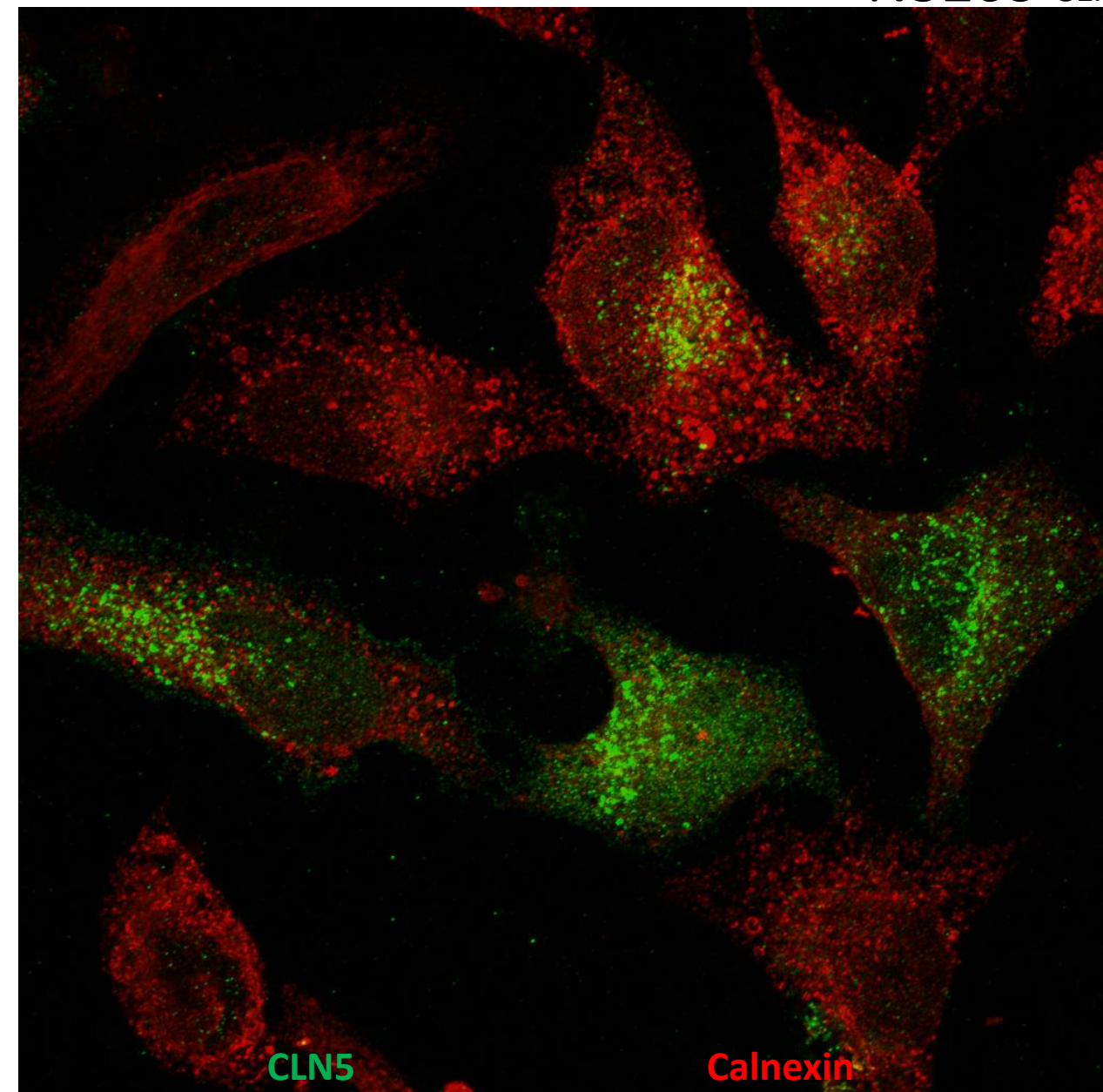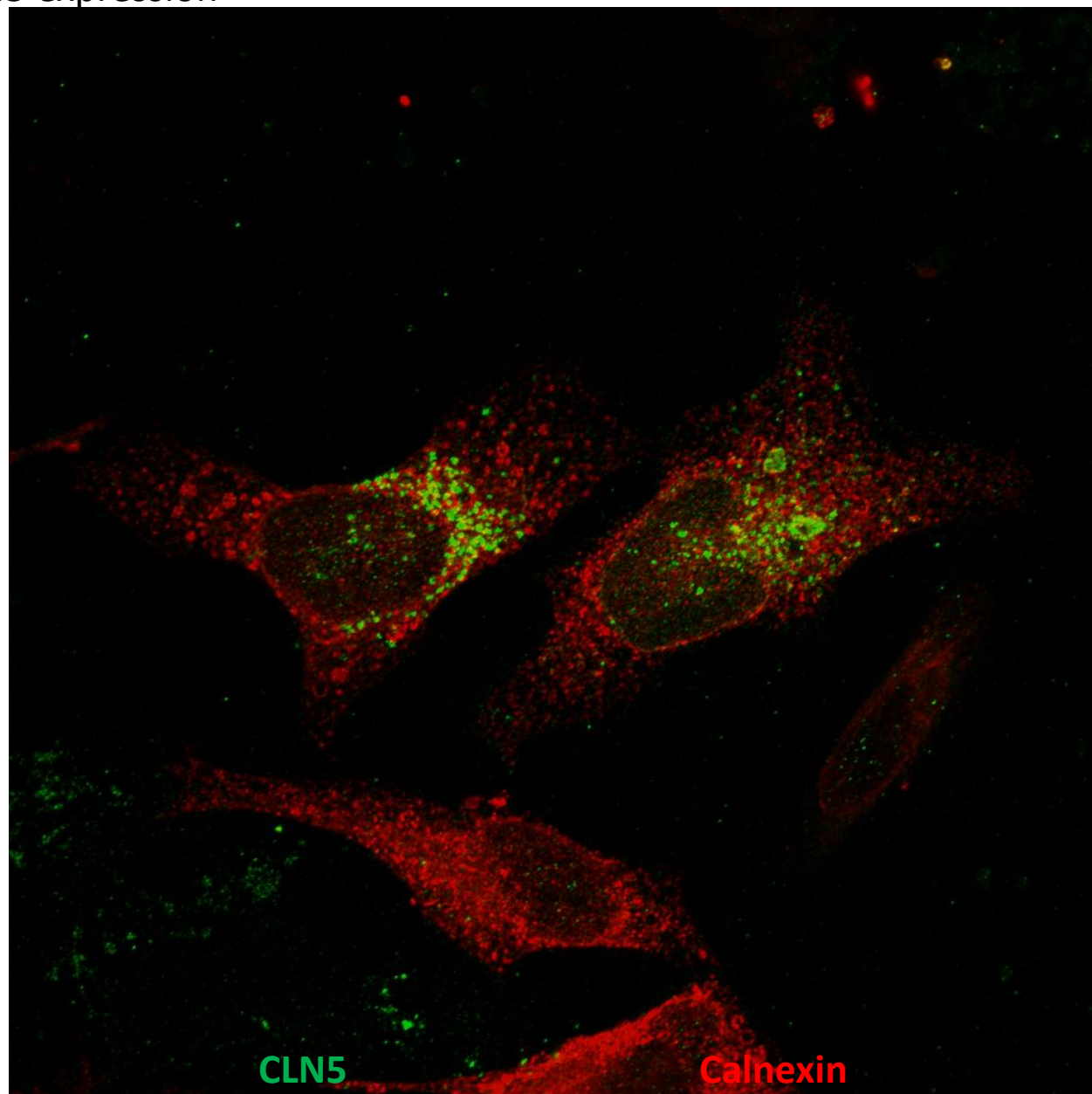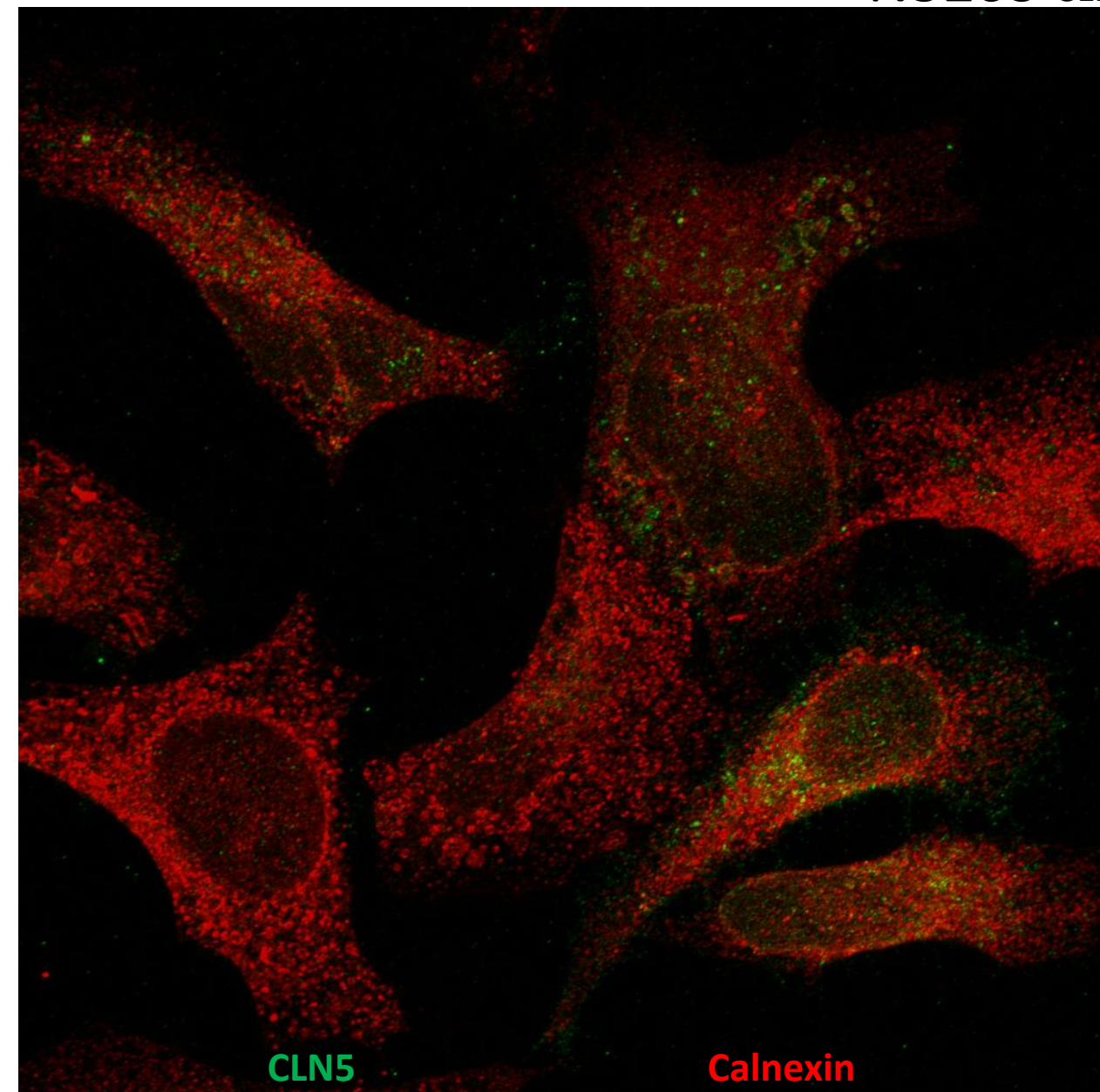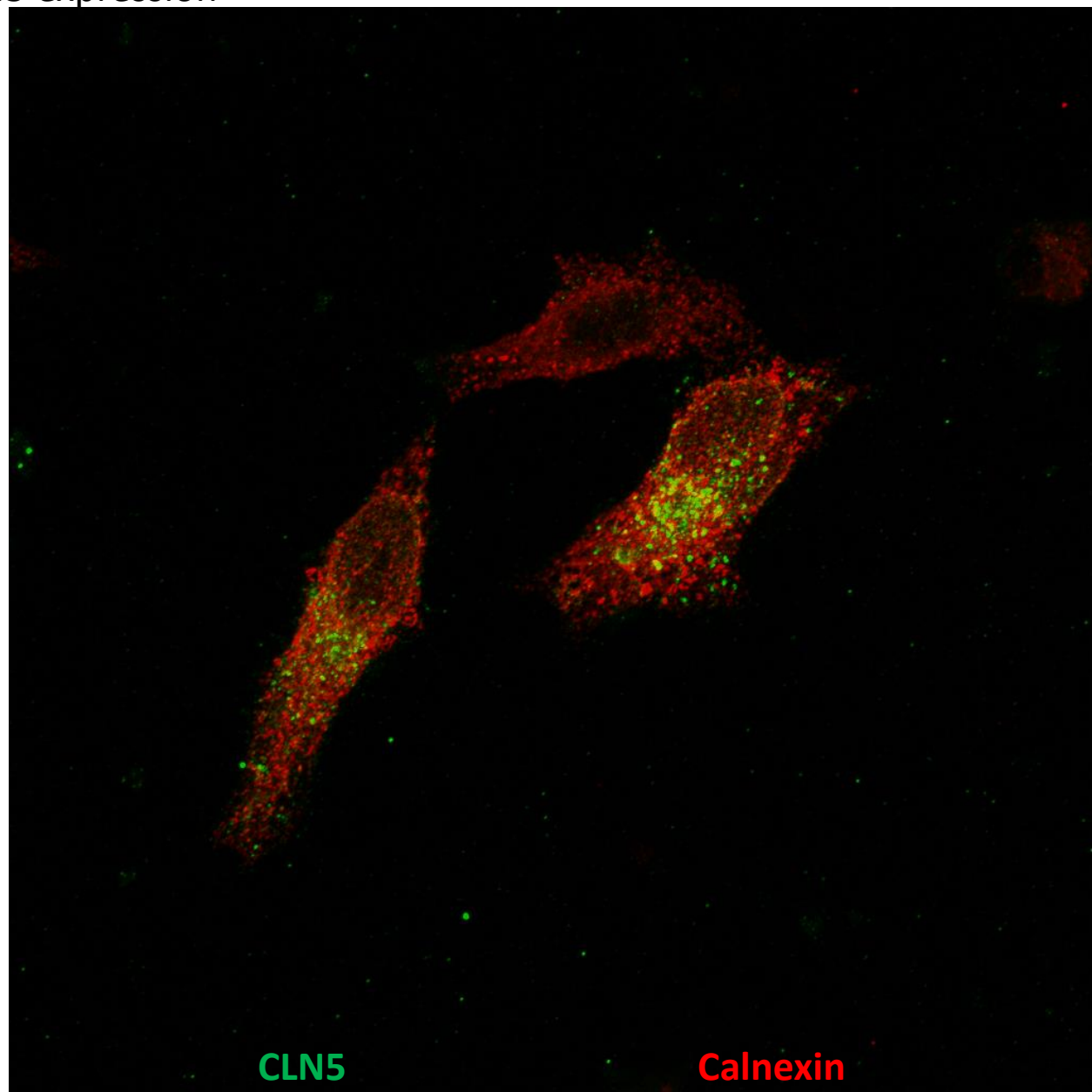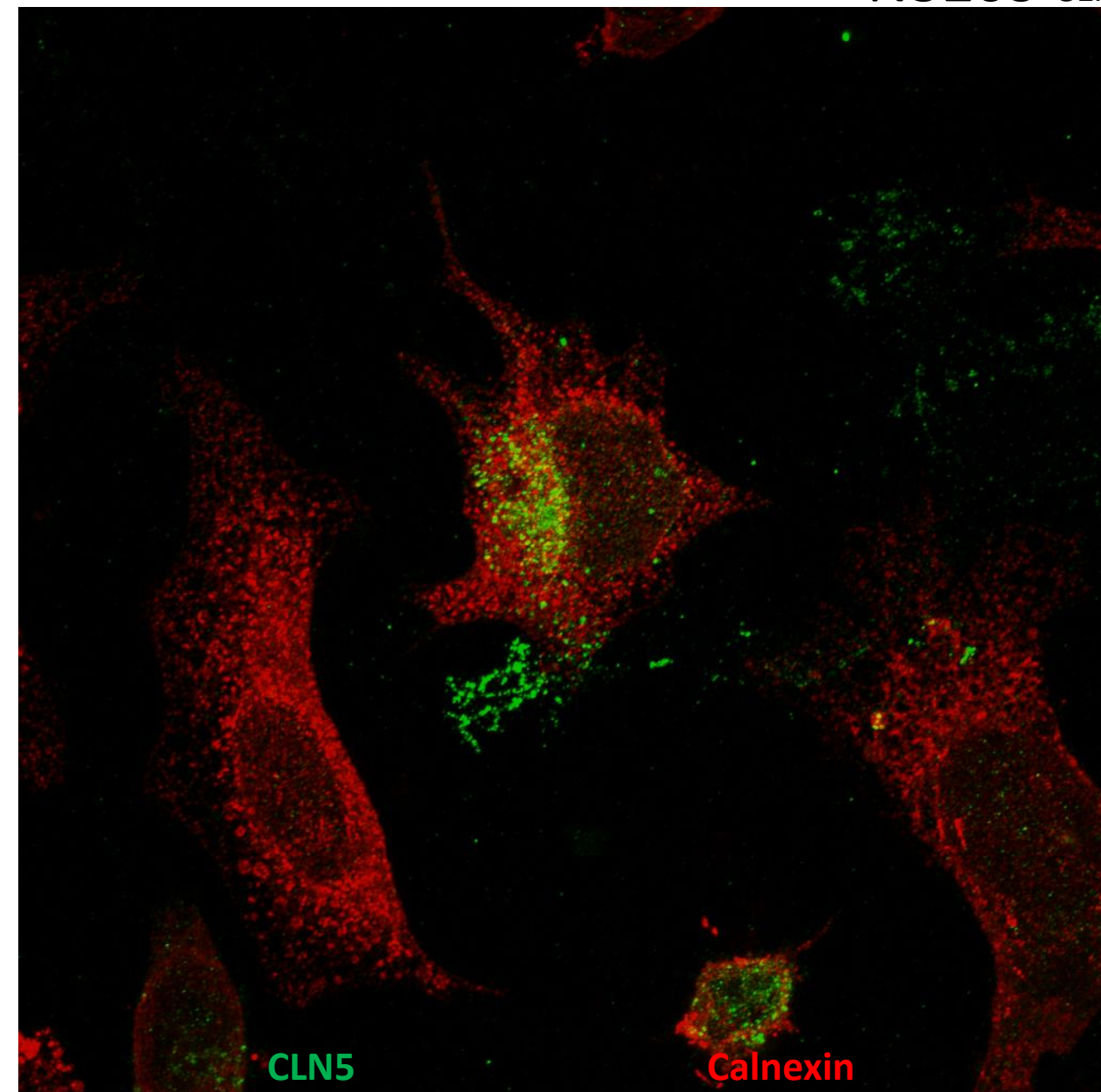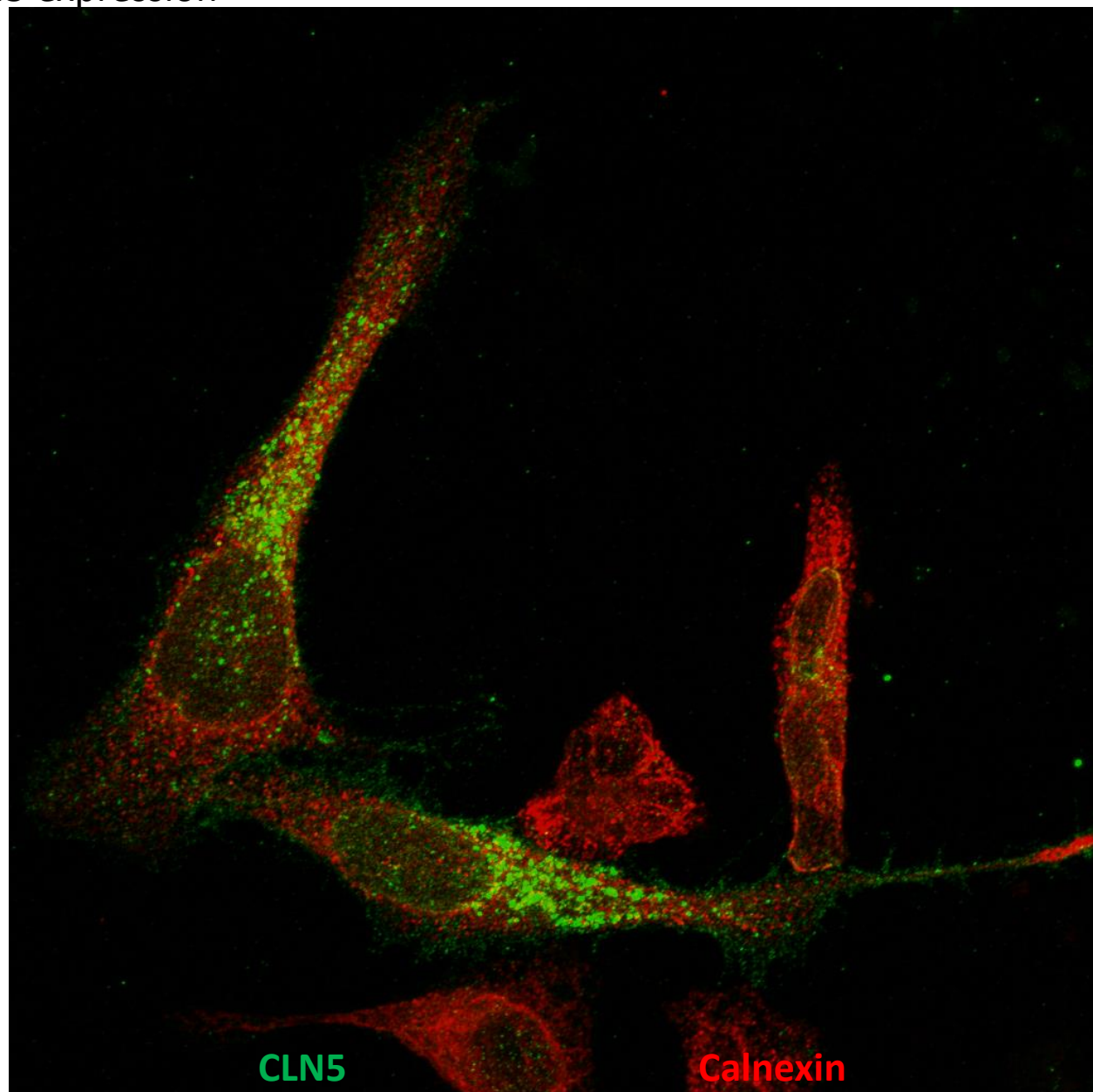CLN5   Calnexin

CLN5   Calnexin
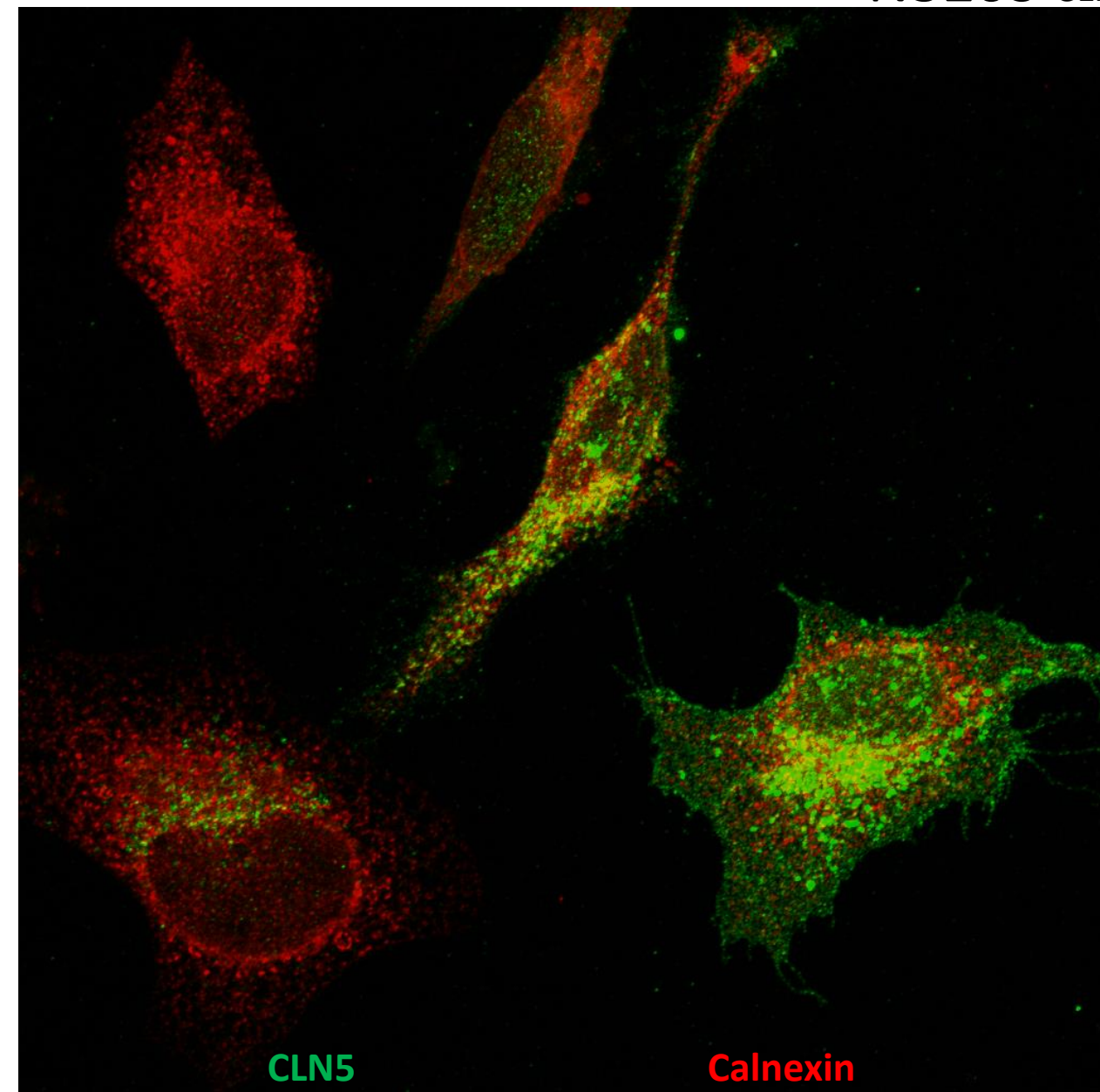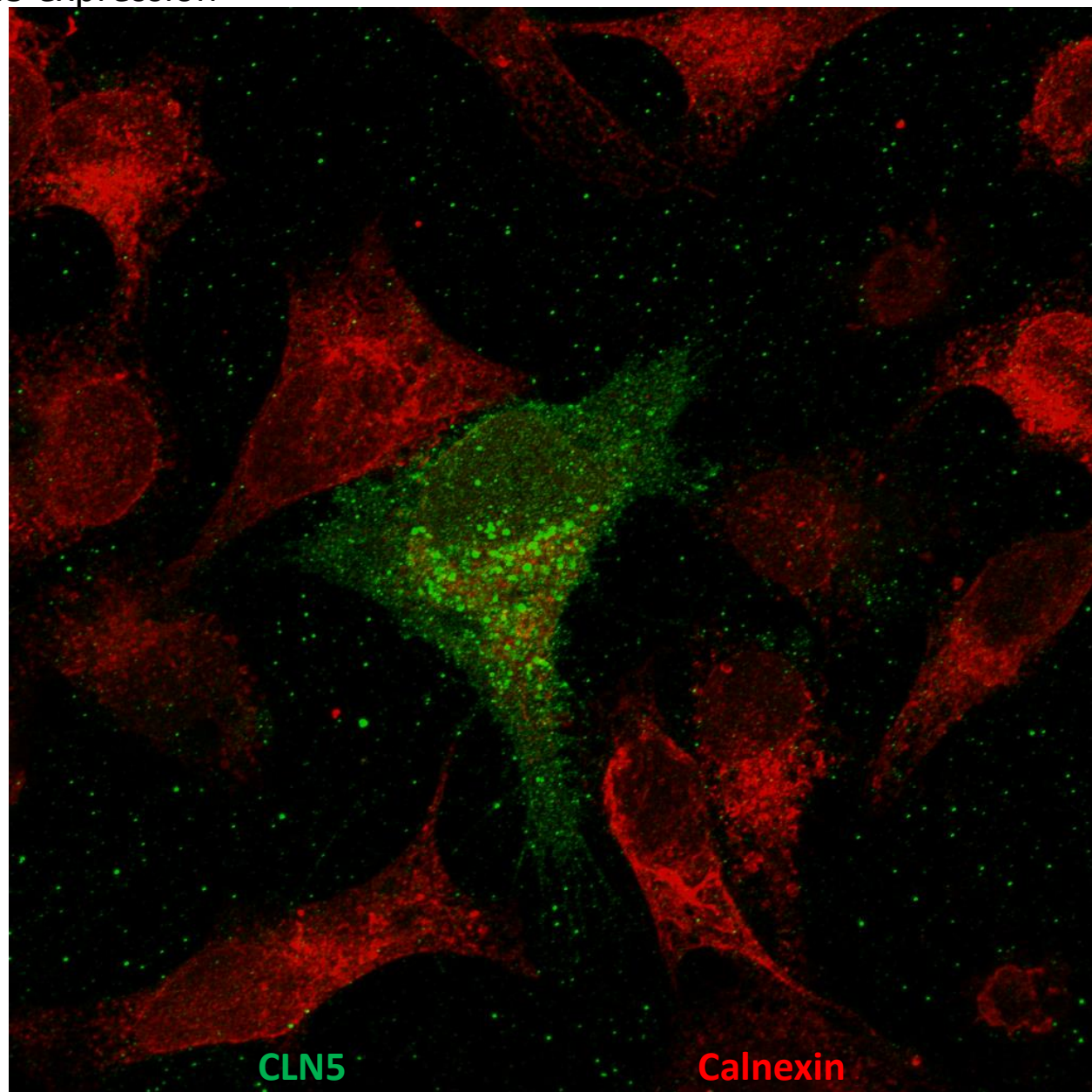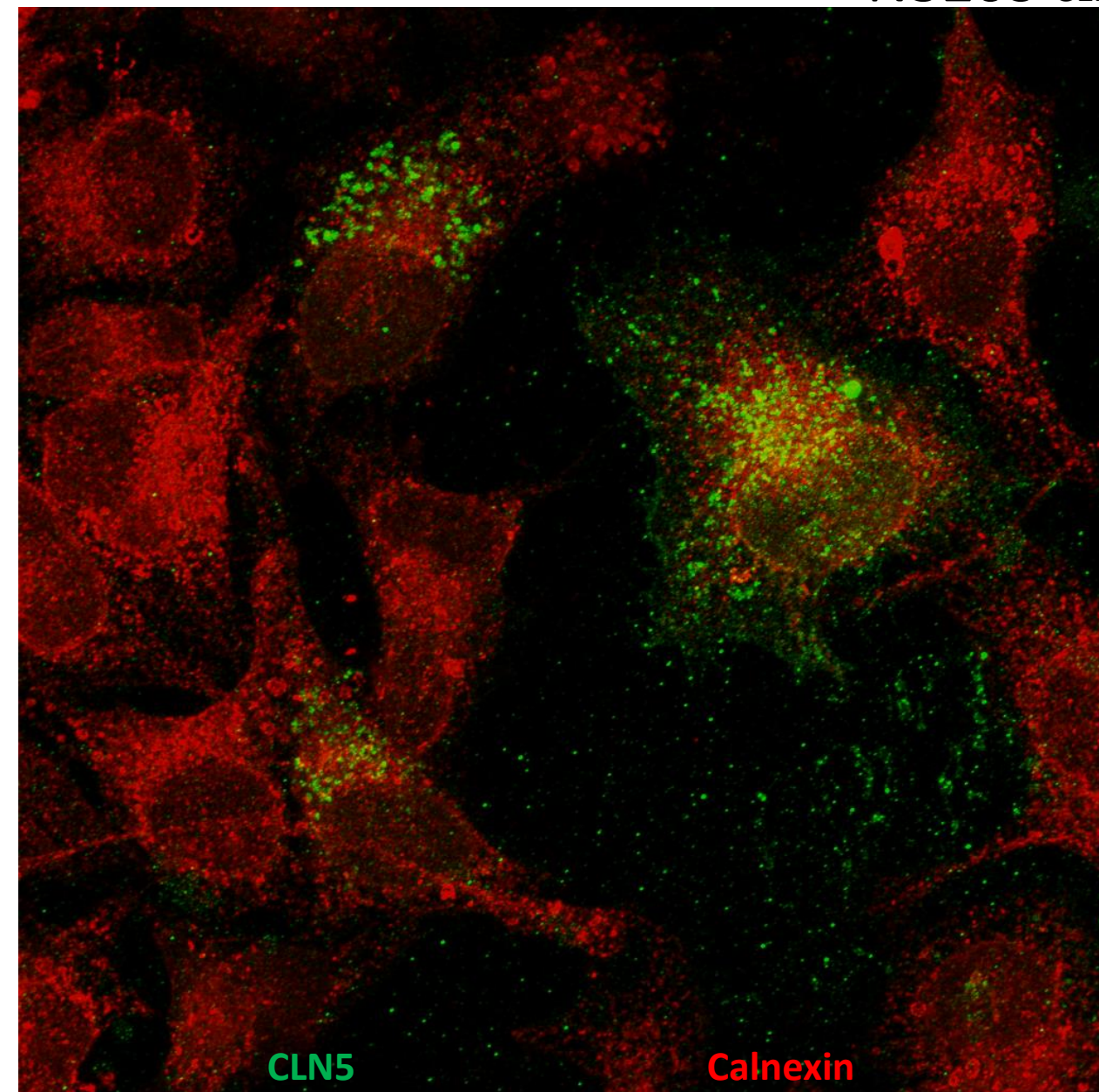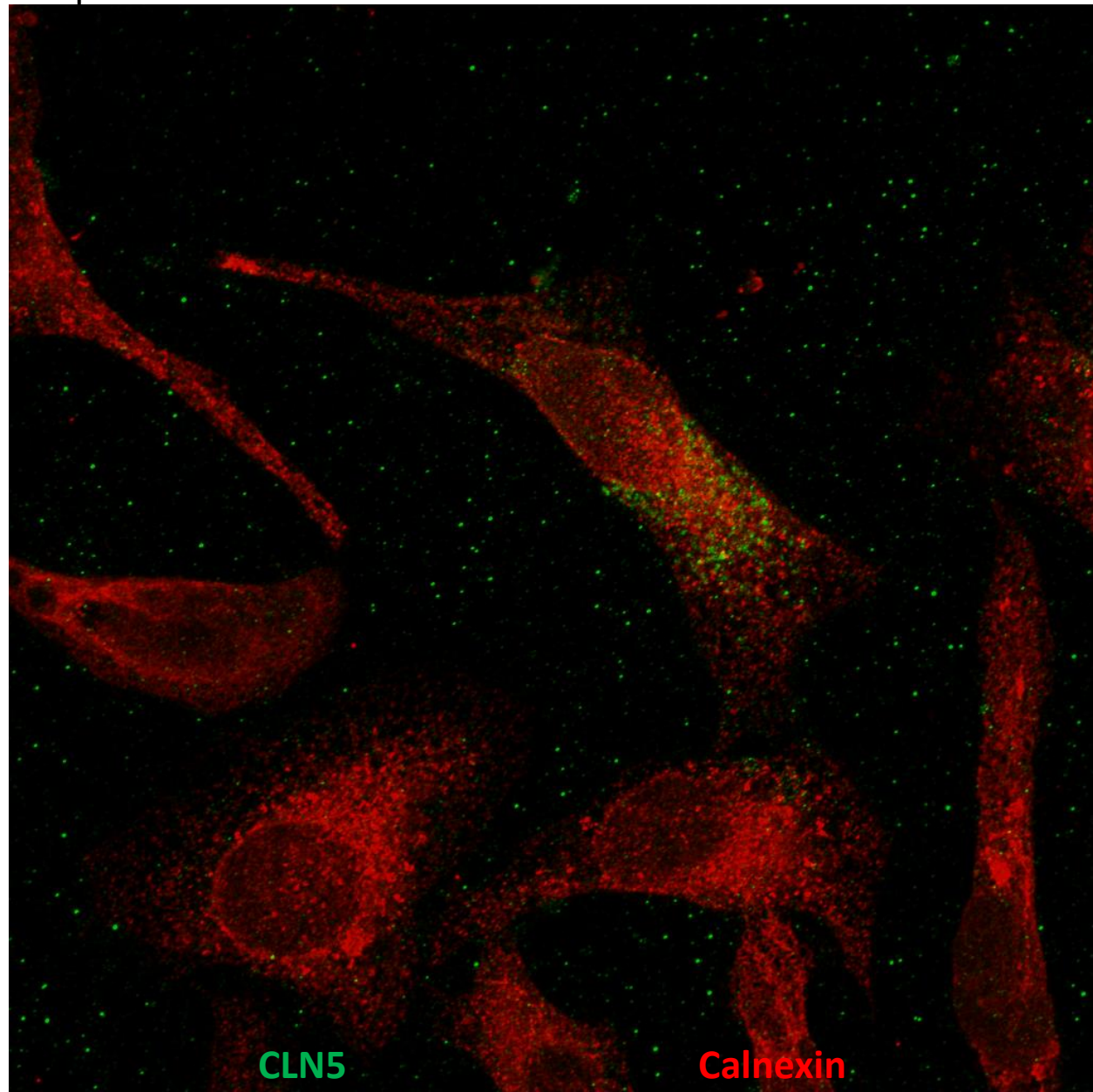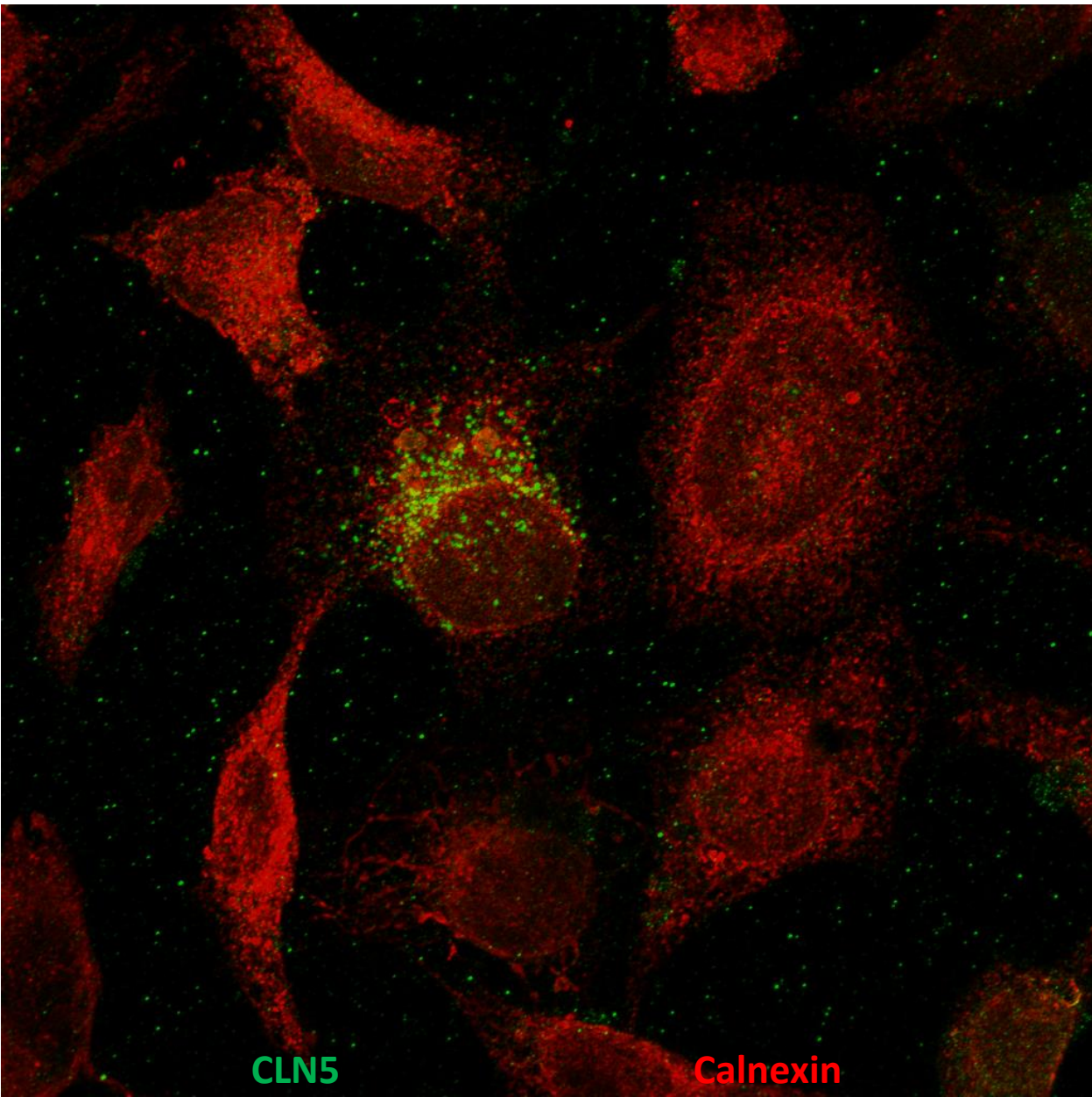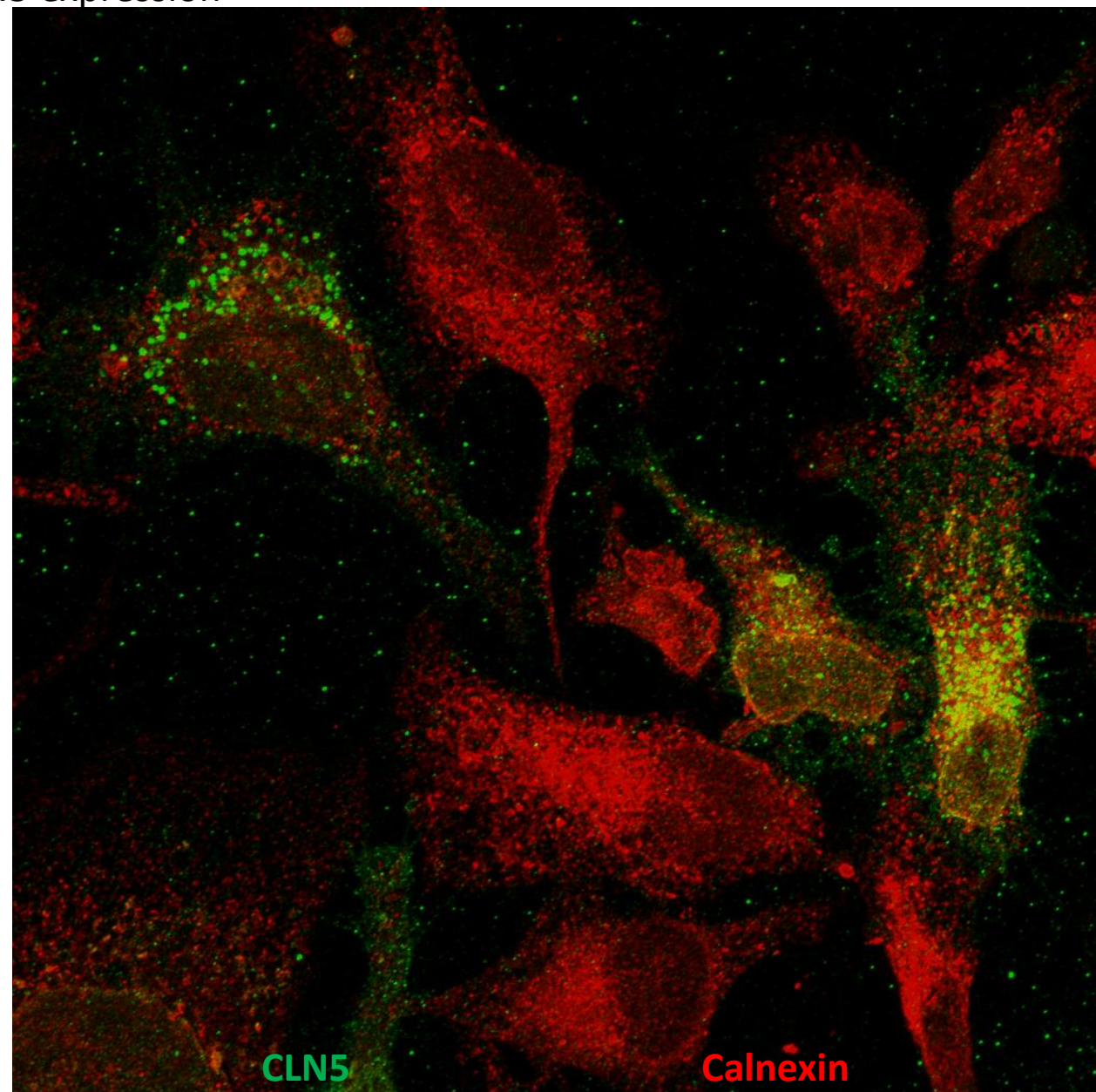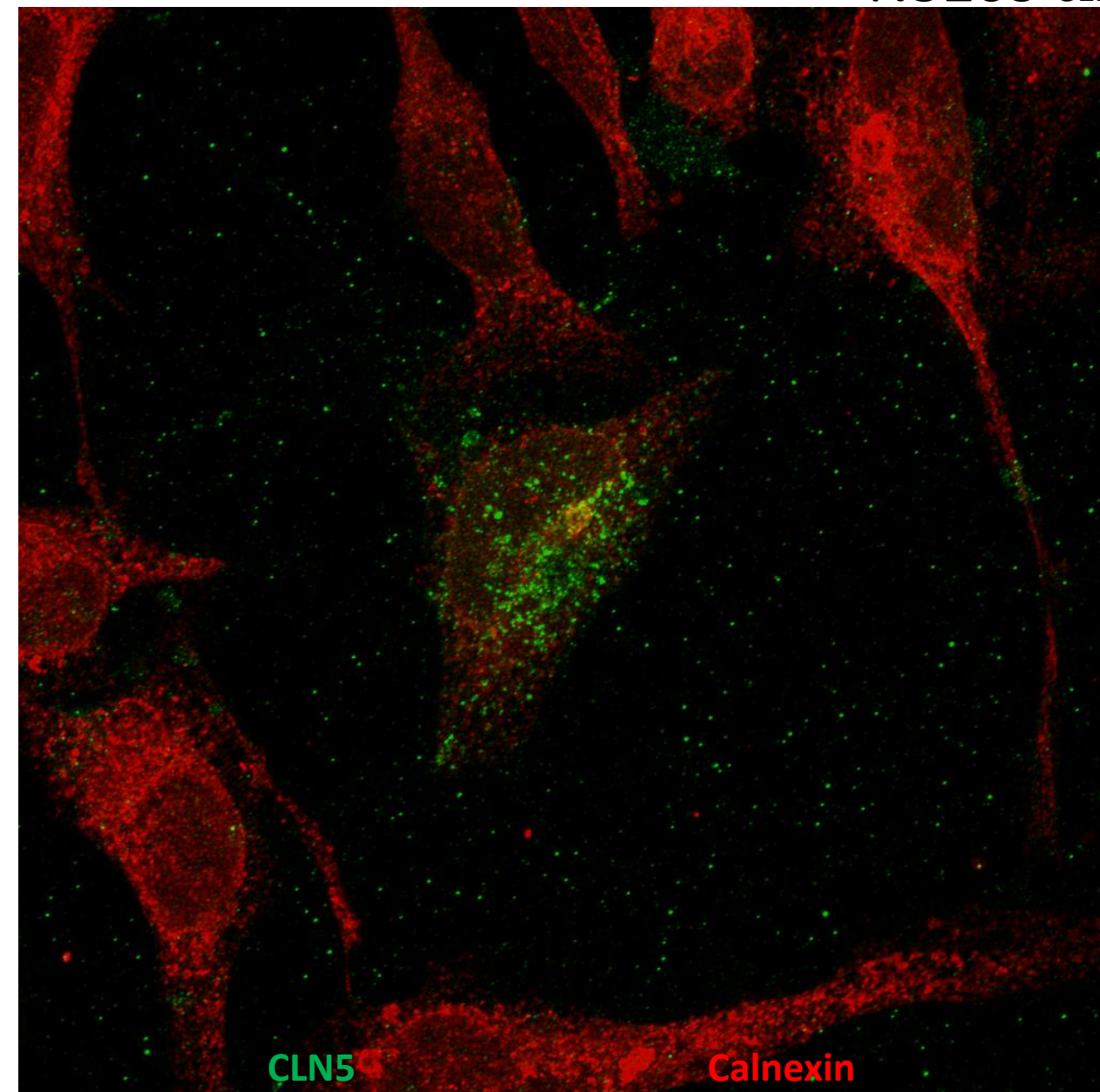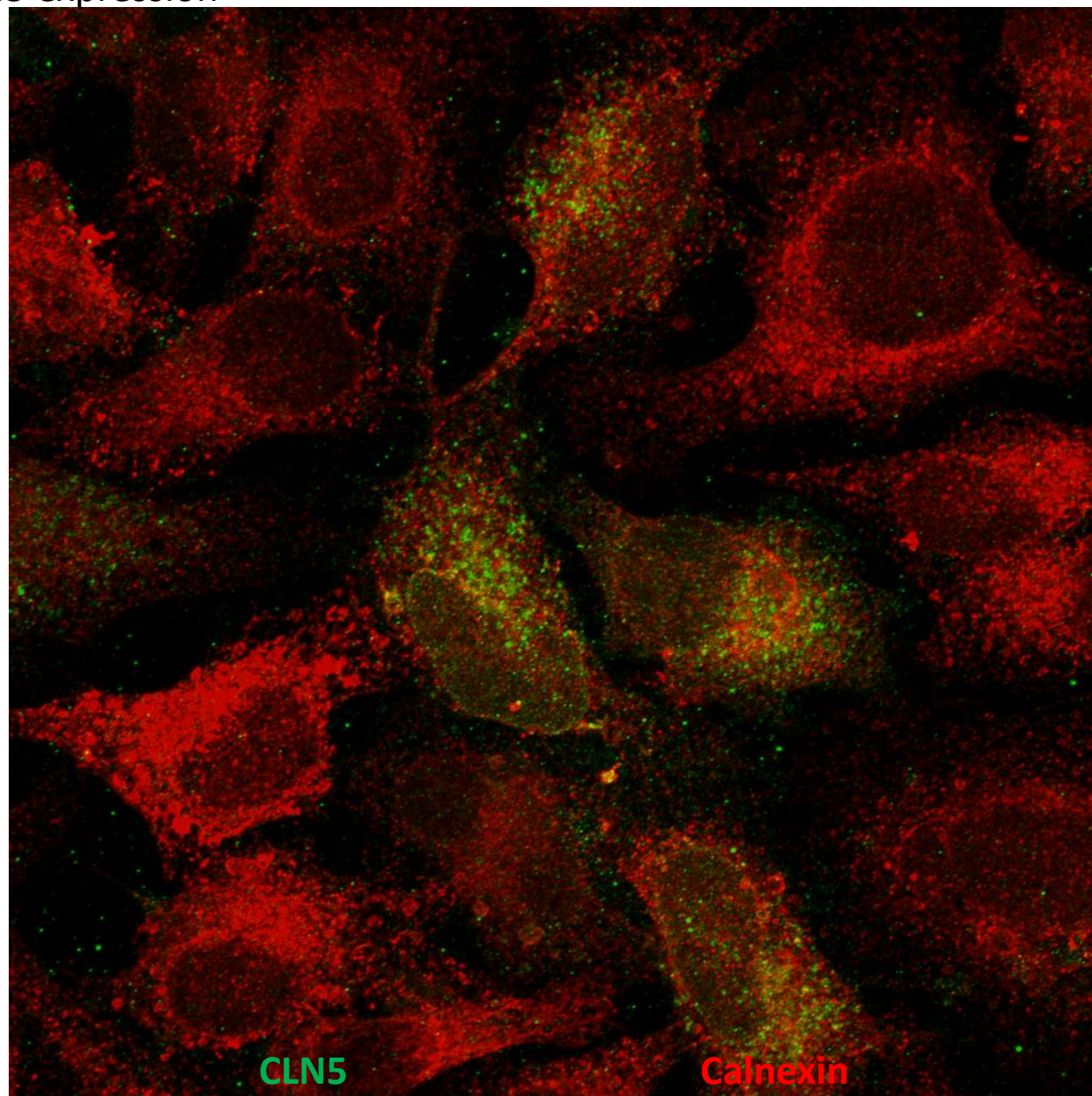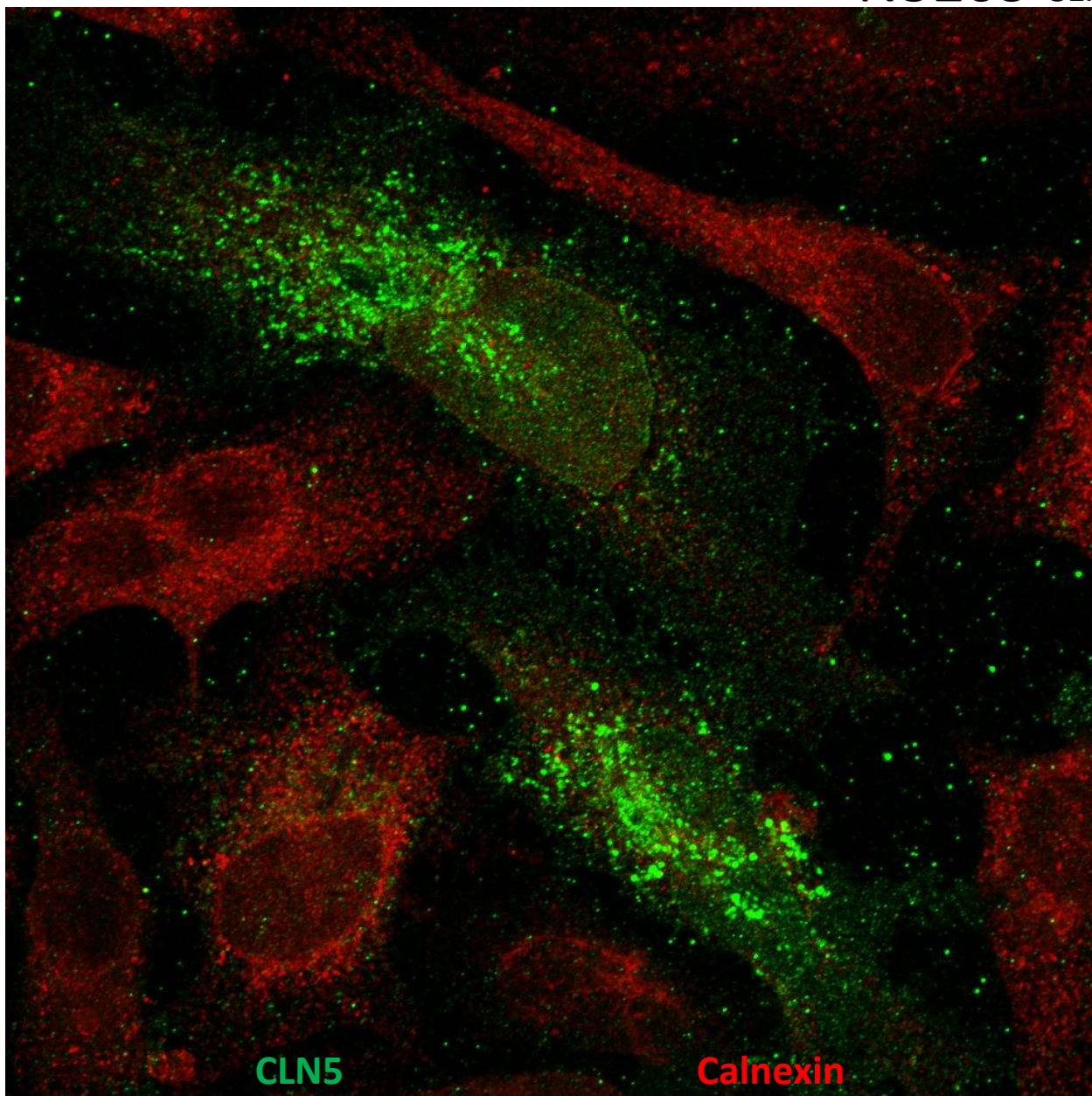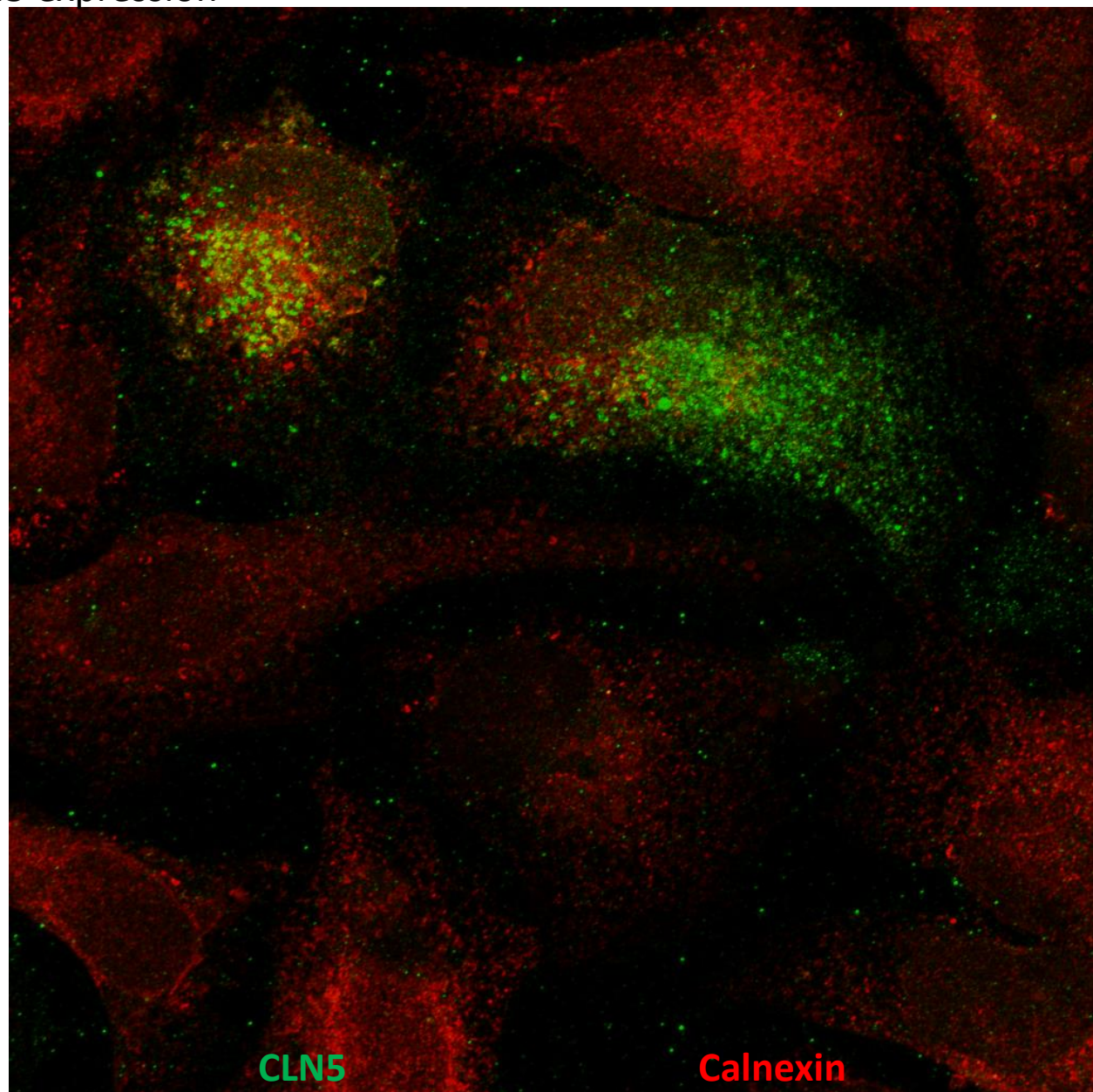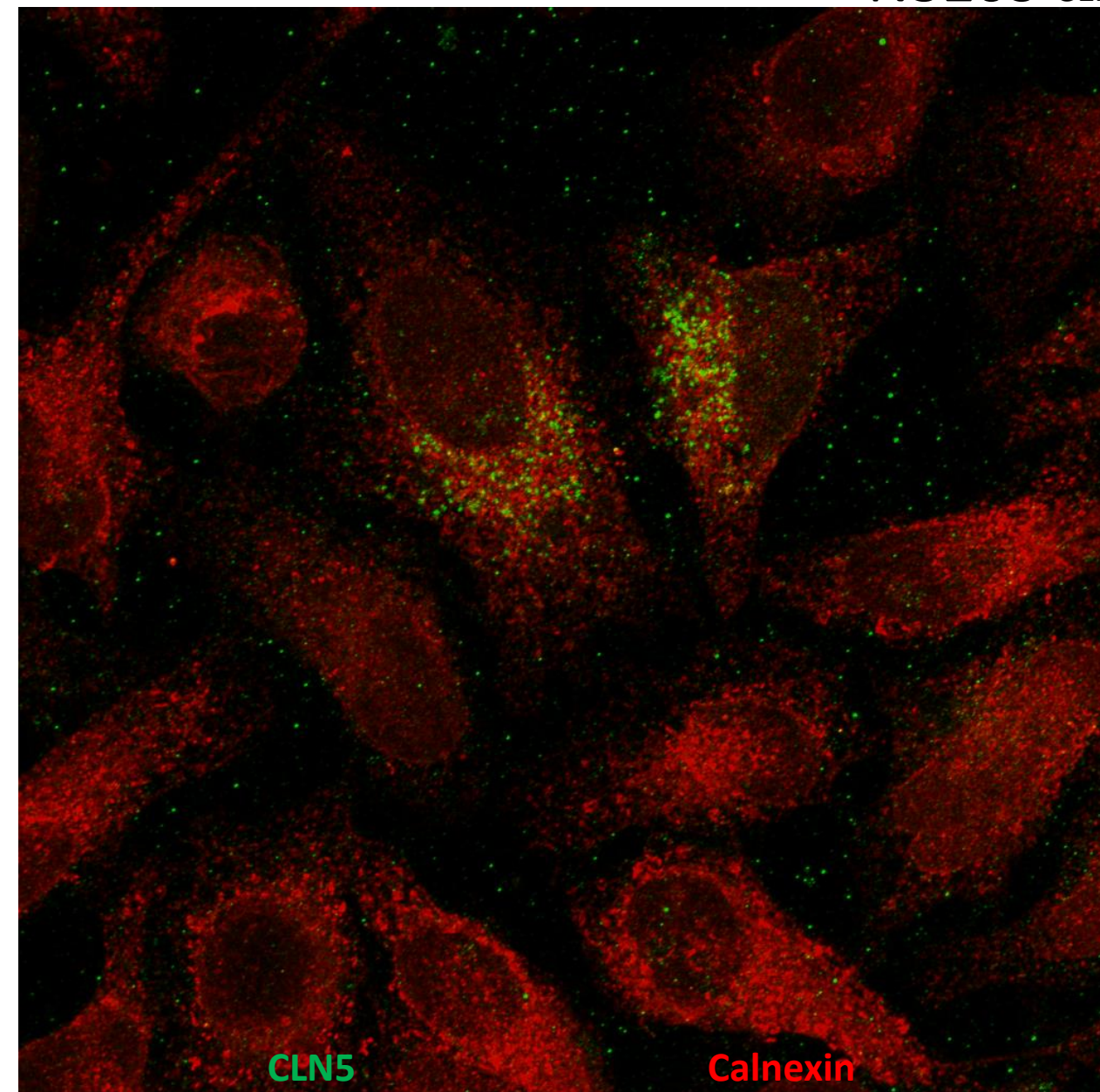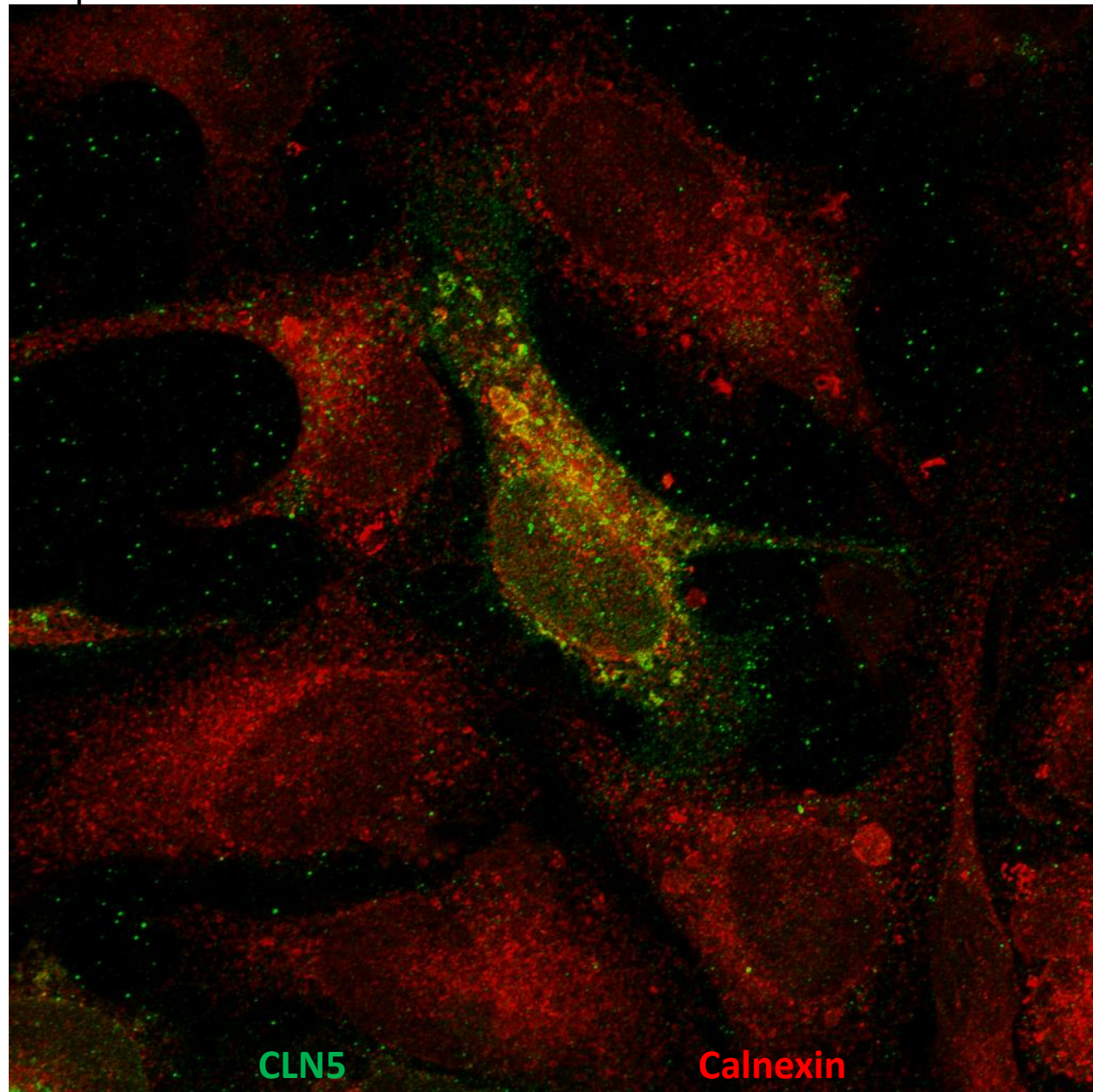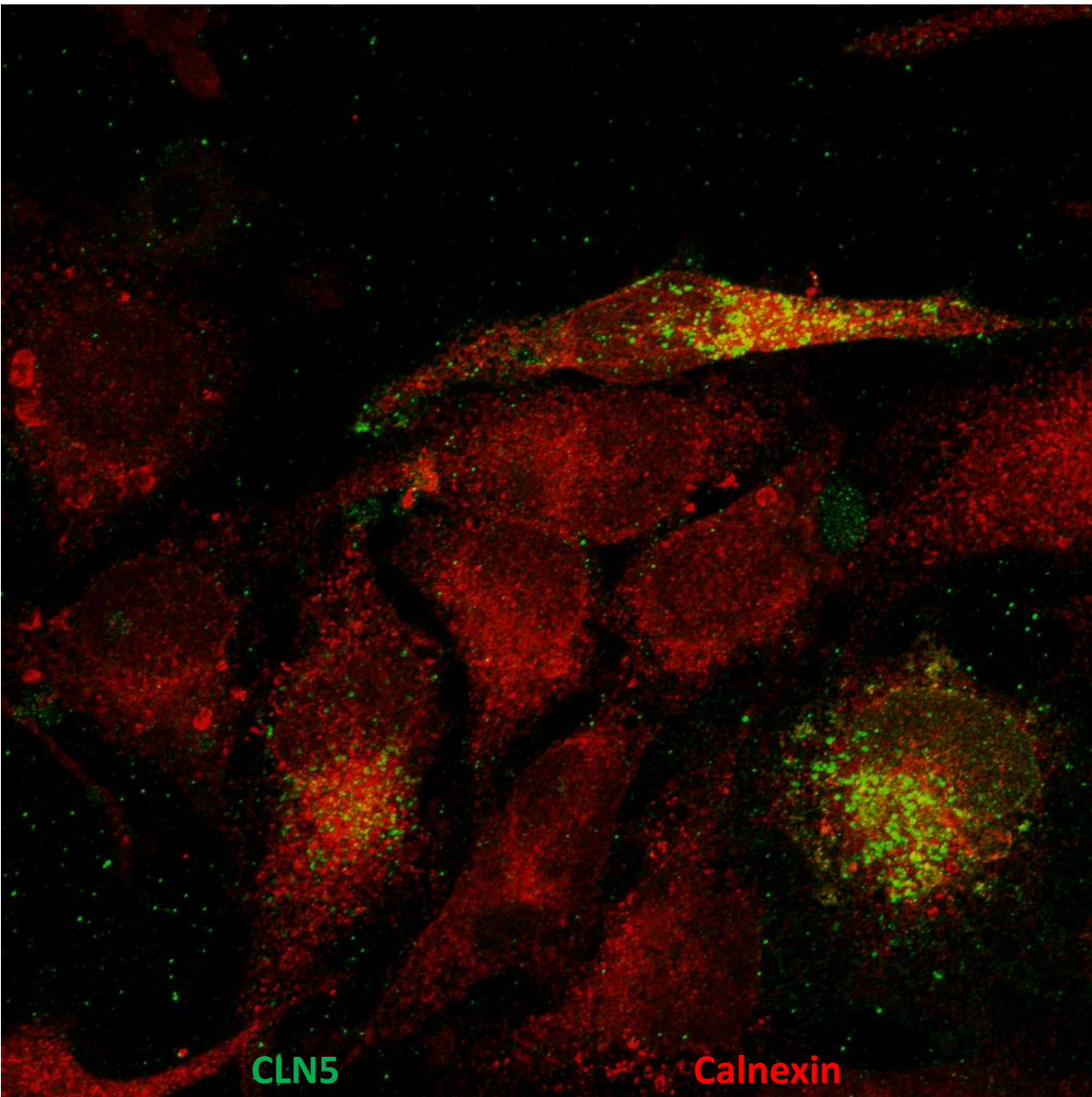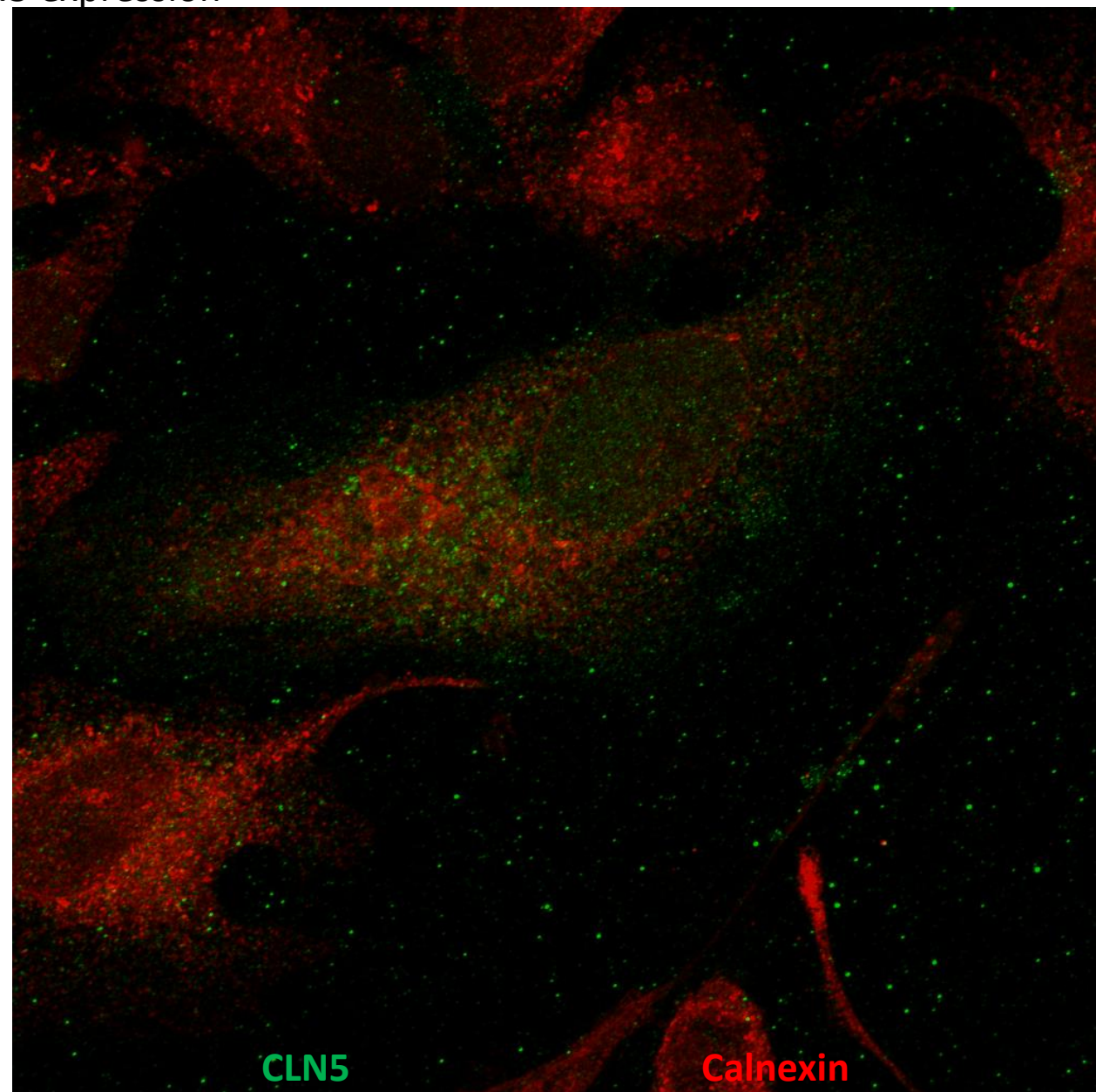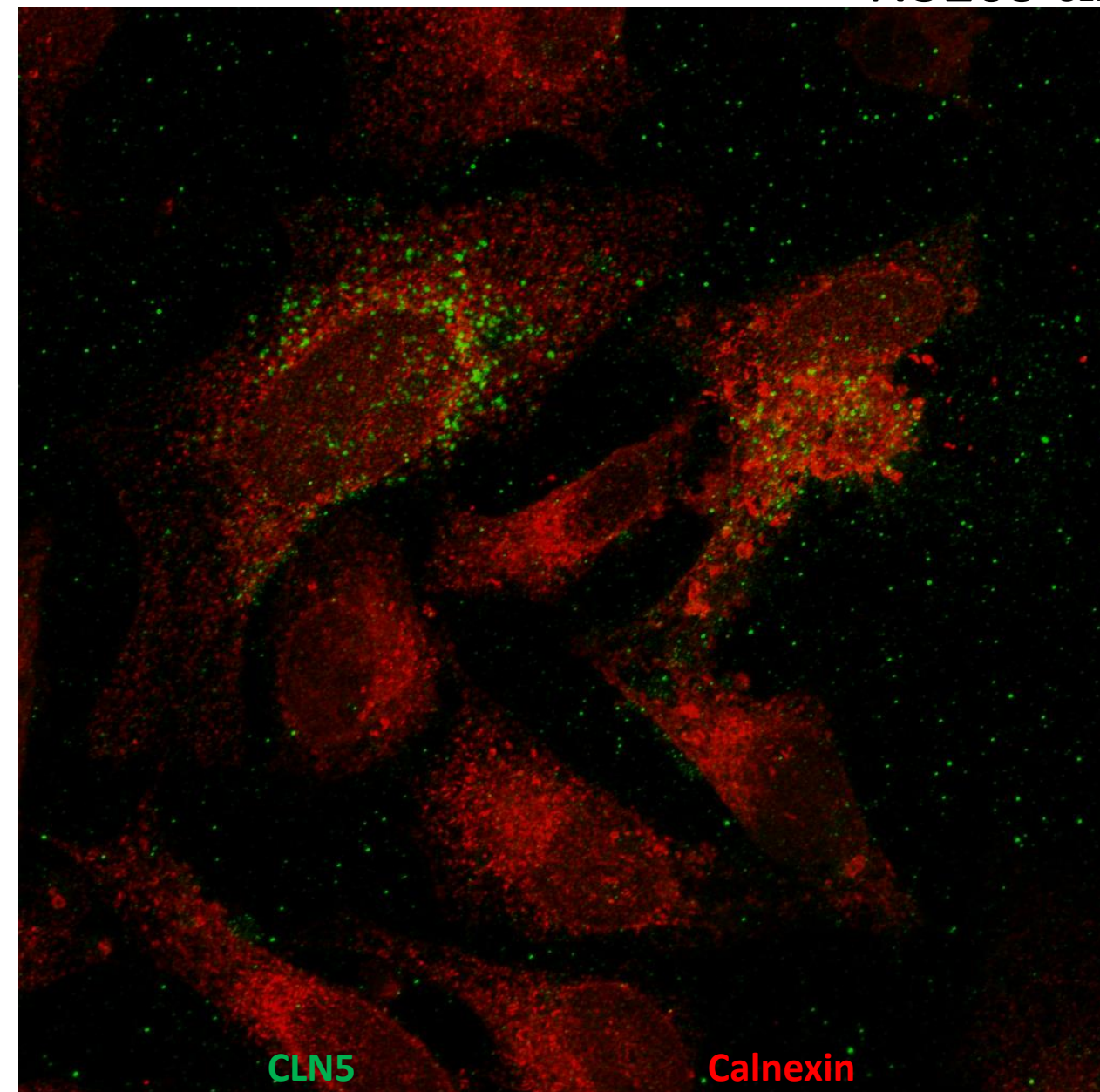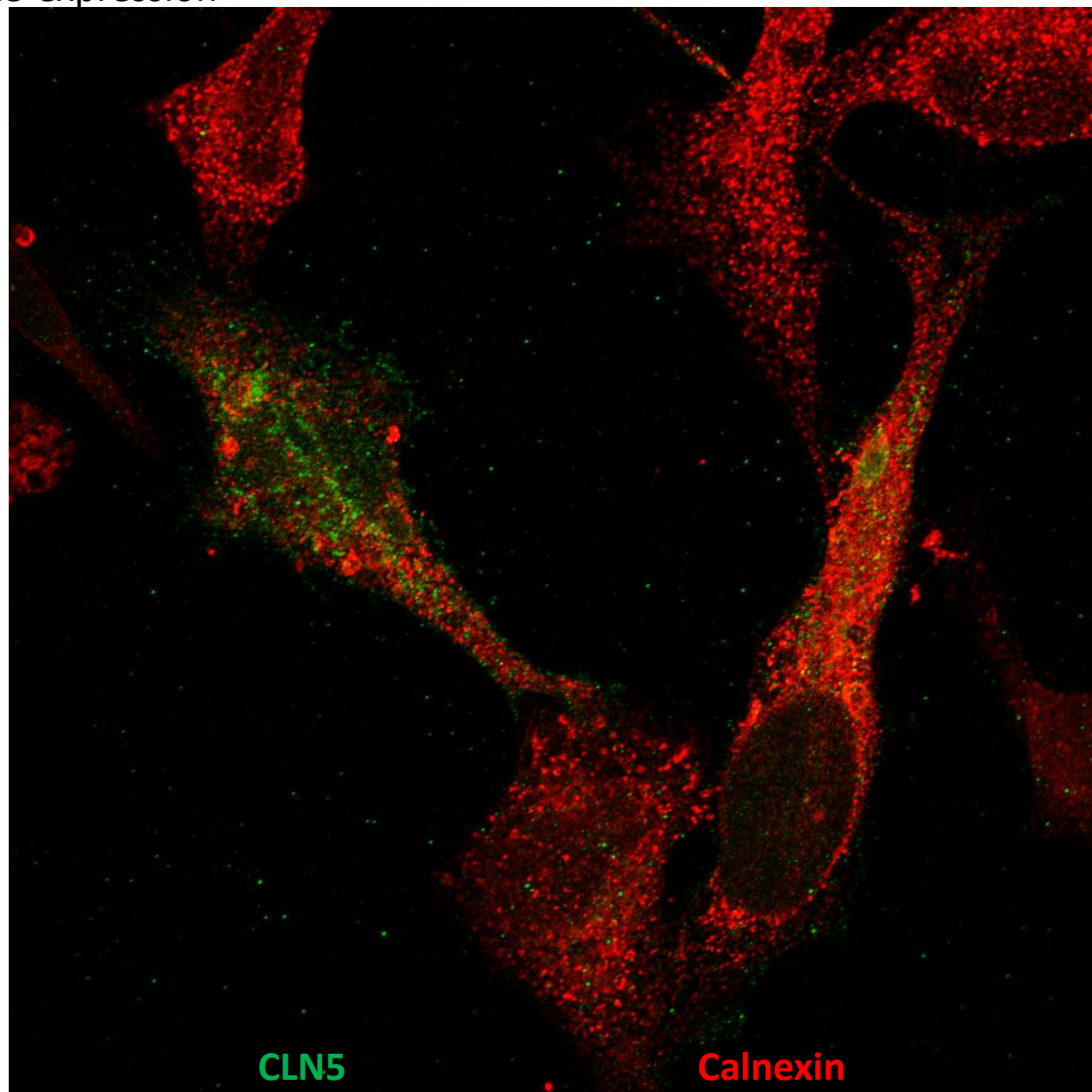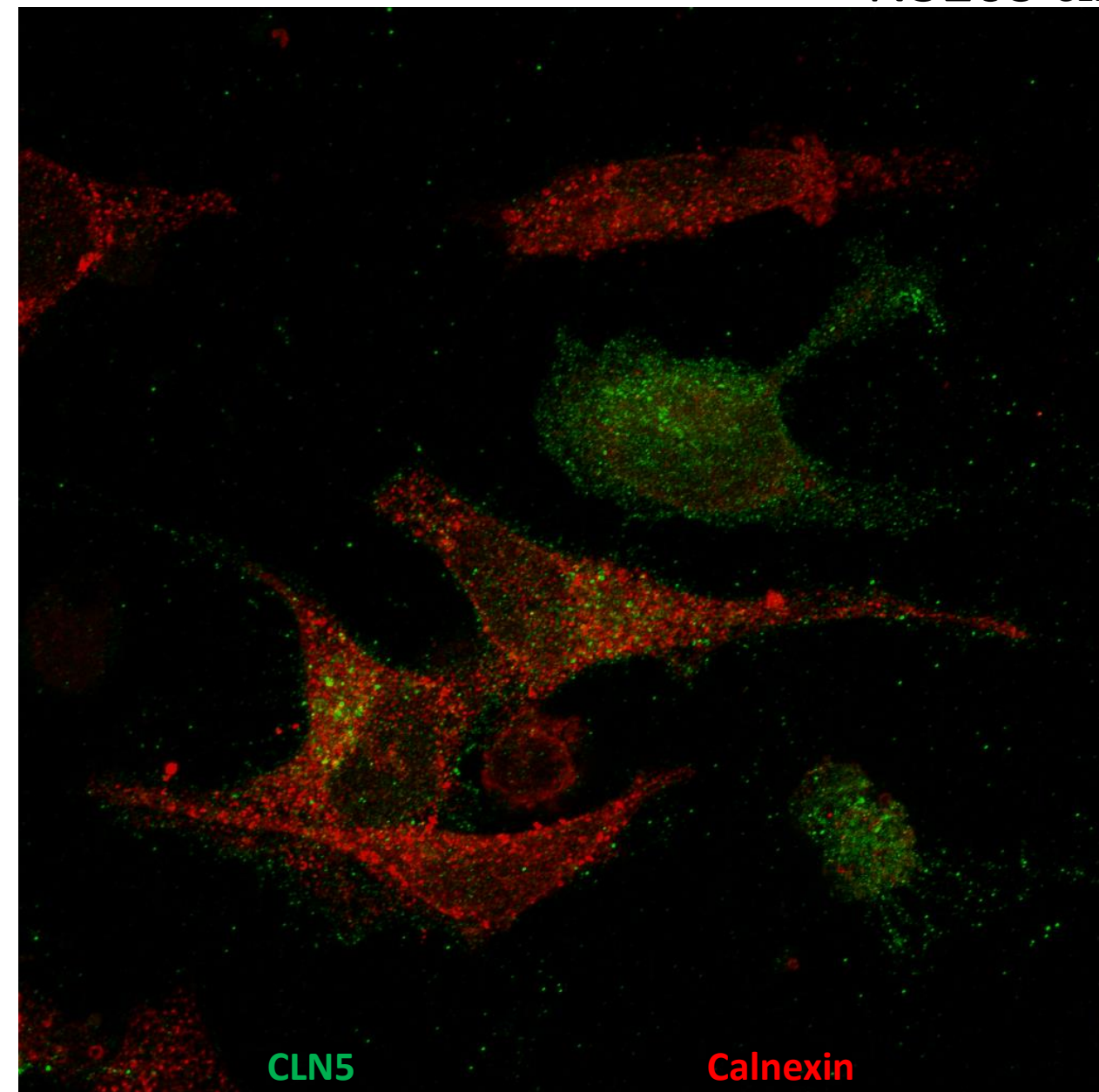
N320S CLN5 expression

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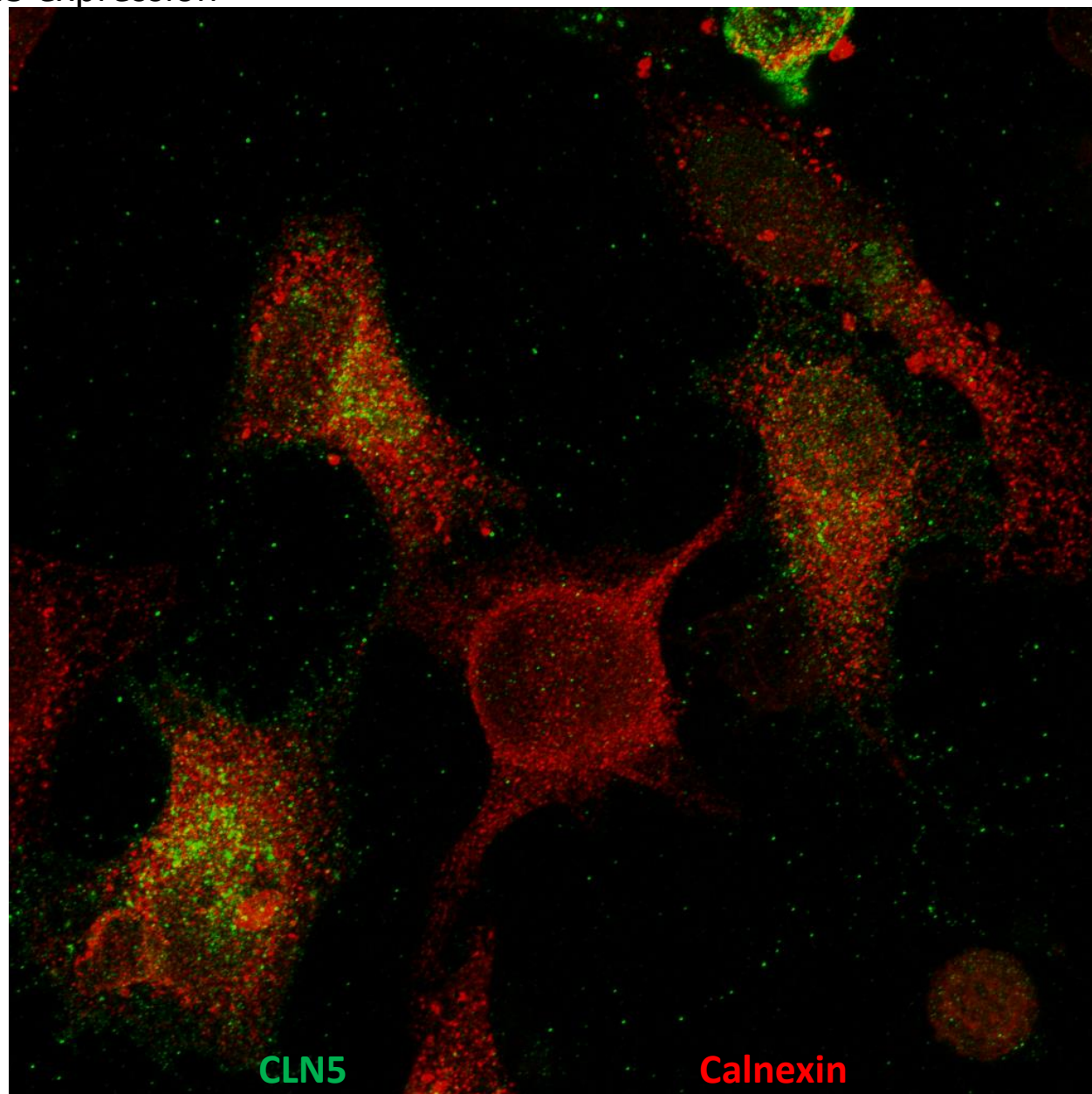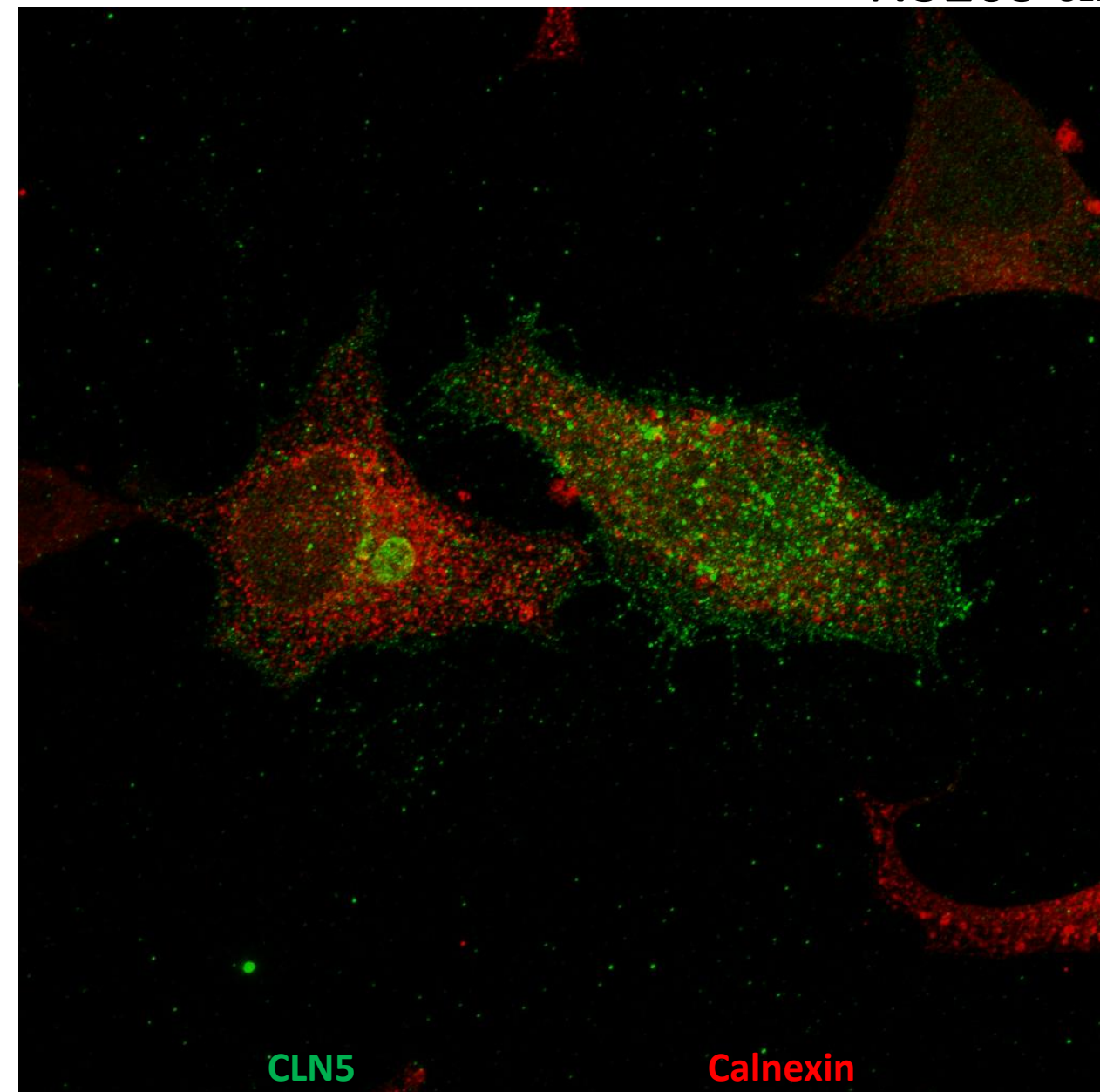
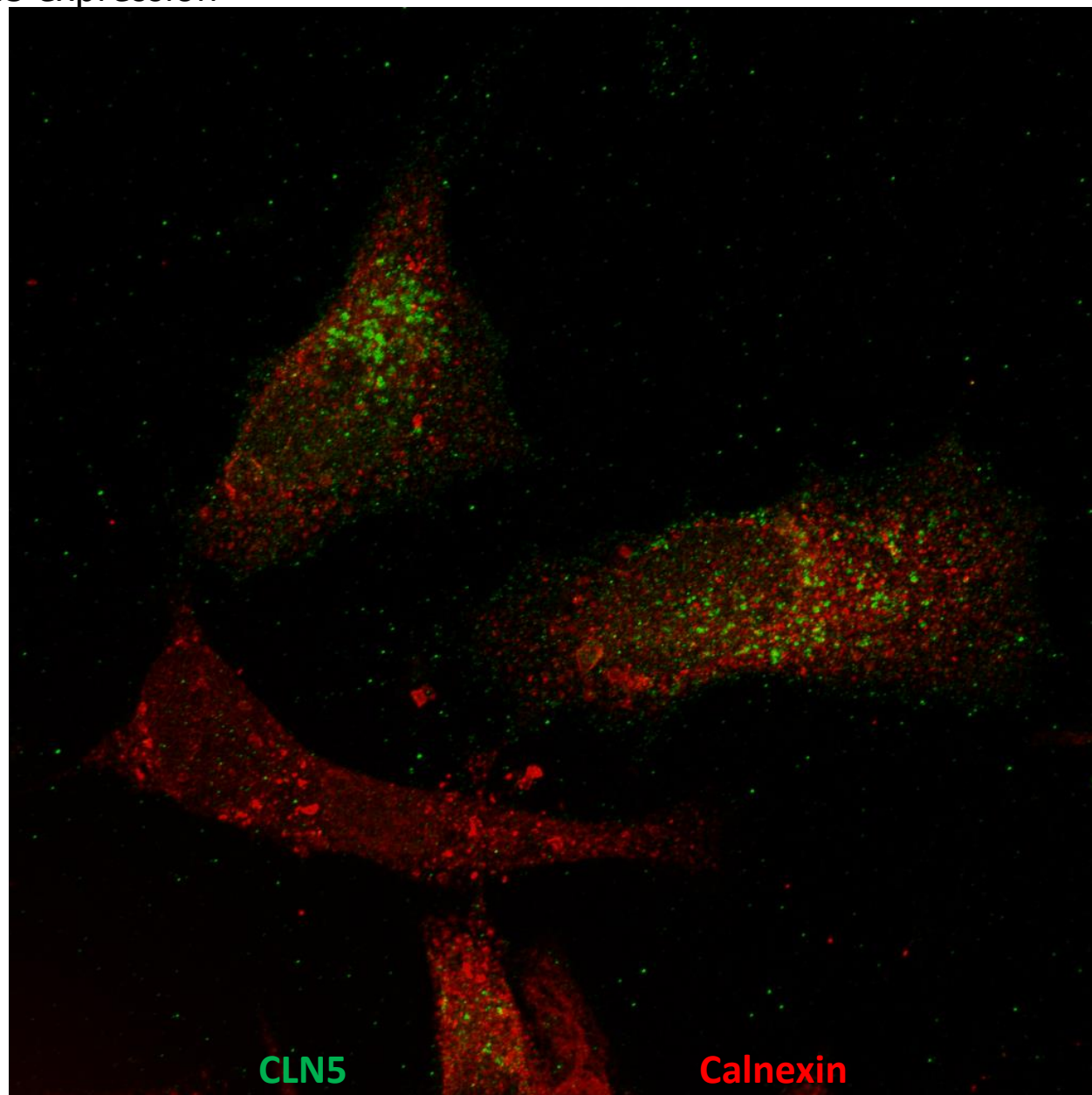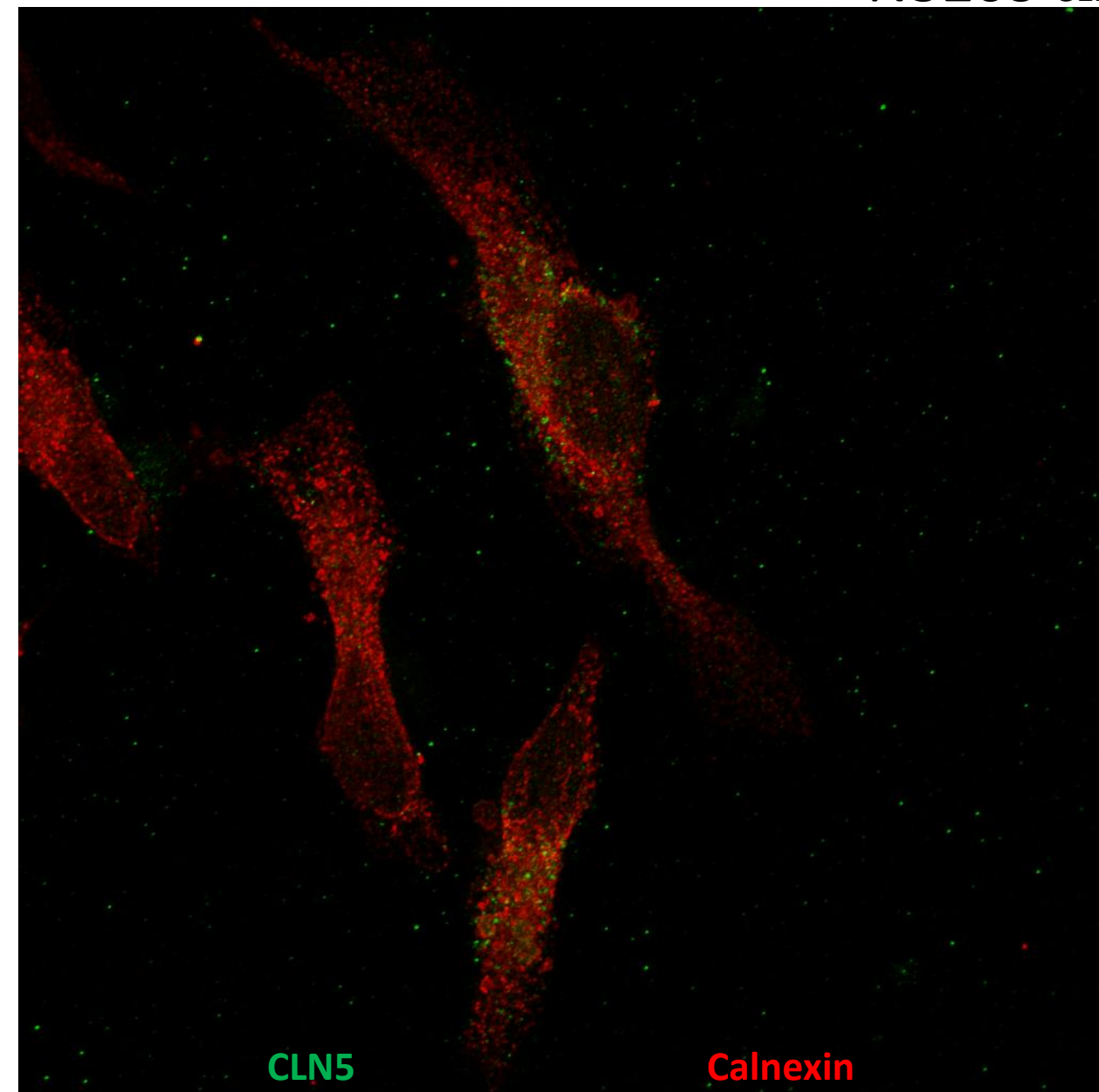CLN5   Calnexin   CLN5   Calnexin

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