



Gastrointestinal mesenchymal tumor

KIT immunostaining

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GIST (I)

Positive desmin

*yes*

*no*

Smooth muscle tumor

KIT sequencing

*mutation*

*wild-type*

GIST (II)

PDGRFA  
sequencing

*mutation*

*wild-type*

GIST (III)

Exclude non-GISTs  
by morphology

GIST (IV)