

Assessment Run 5 2001 Desmin (DES)

The slides to be stained for desmin contained normal colon, skin and skeletal muscle, two leiomyomas and two leiomyosarcomas.

42 laboratories submitted stainings. Of these, 31 used mAb D33, 11 used mAb DE-R-11.

At the assessment, 20 laboratories achieved optimal staining, 16 acceptable, and 6 borderline, while none achieved poor staining. Both mAbs gave about the same proportion of good stainings. Mandatory for an optimal staining was an efficient HIER and appropriate dilution of the primary antibody. Conversely, borderline staining was seen in cases of proteolytic pre-treatment or too dilute primary antibody. Note that a slight overstaining of the normal muscle cells should be accepted in order to achieve proper staining of tumour cells, which often have fewer epitopes available.

Representative fields are illustrated below (Fig. 1 mAb D33, Fig. 2 mAb DE-R-11) with links to examples of protocols giving an optimal staining.

One laboratory, which submitted a staining assessed as borderline, subsequently changed their protocol and submitted a new staining.

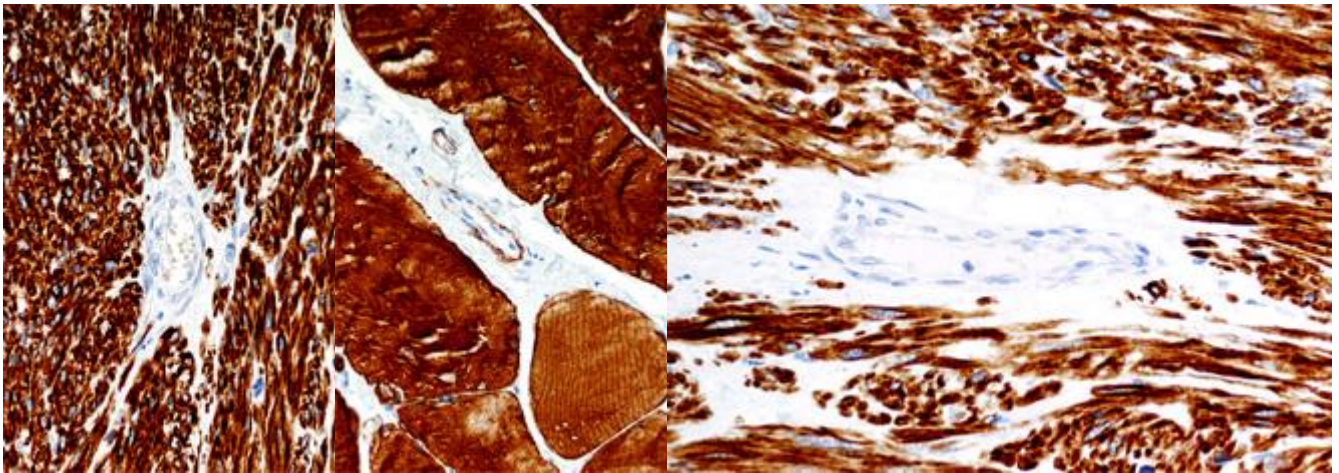


Fig. 1a
Optimal staining using mAb D33. To the left a leiomyosarcoma shows intense staining of all tumour cells. To the right striated muscle cells are stained. Also the smooth muscle cells of a vessel (centre) are stained.

Fig. 1b
Optimal staining using mAb D33. The tumour is the leiomyoma also illustrated in Figs. 2a and 2c-d.

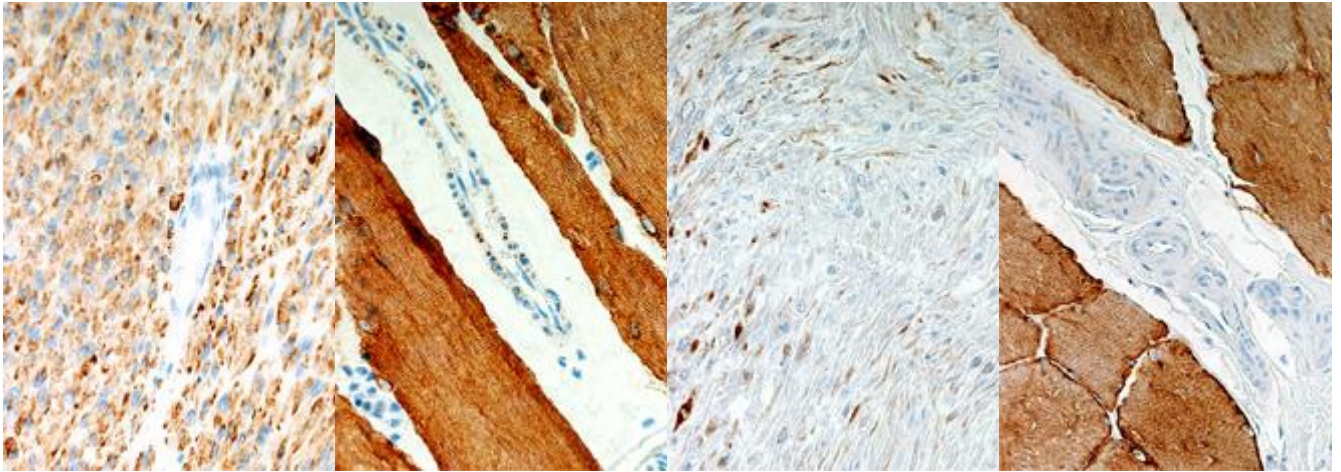


Fig. 1c
Acceptable staining. Same mAb as in Fig. 1a, same fields. Most tumour cells are stained, but in a more dot like fashion.

Fig 1d.
Borderline staining. Same mAb as in Fig. 1a, same fields. Many tumour cells (left) are weakly stained or unstained. The striated muscle cells (right) are properly stained while the vascular smooth muscle cells are unstained.

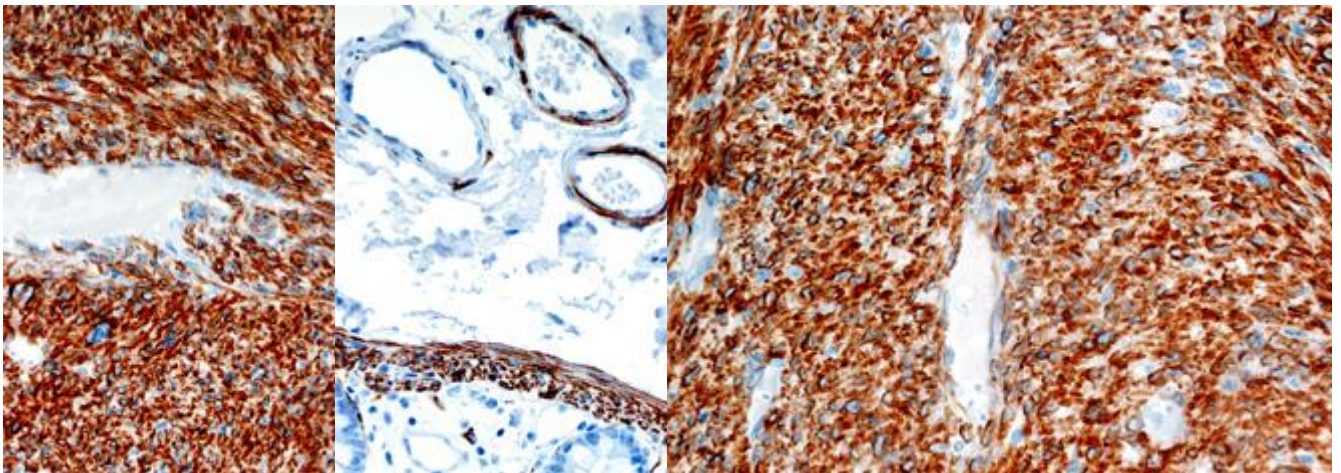


Fig. 2a
Optimal staining, using mAb DE-R-11. To the left a leiomyoma shows intense staining of all tumour cells. To the right, intense staining is seen in the muscularis mucosae of colon, and most smooth muscle cells in the submucosal vessels are stained.

Fig. 2a
Optimal staining, using mAb DE-R-11. The tumour is the leiomyosarcoma also illustrated in Figs. 1a and 1c-d.

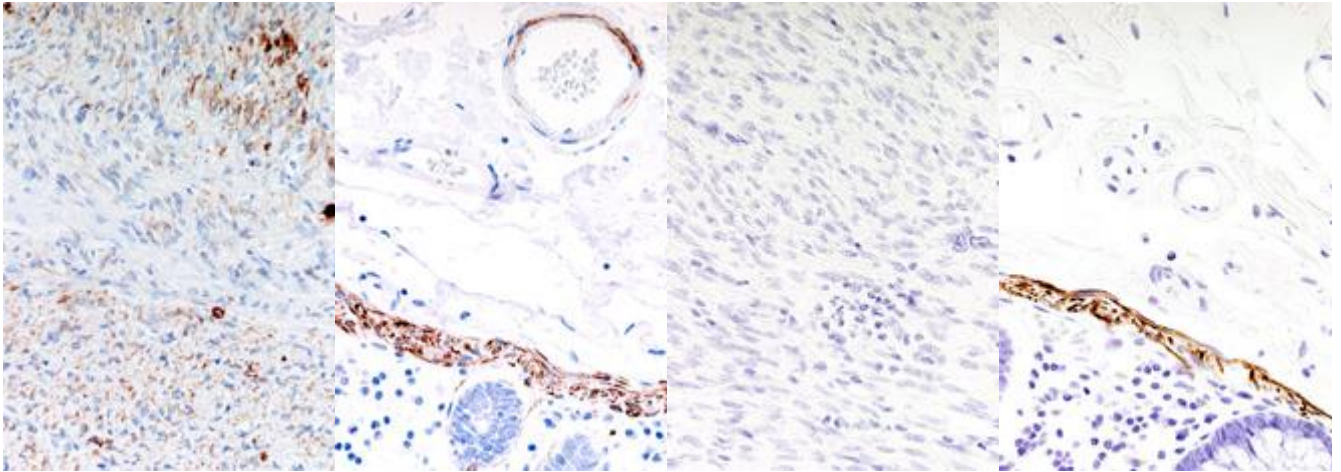


Fig. 2c
Acceptable staining. Same mAb as in Fig. 2a, same fields. Most of the tumour cells (left) as well as smooth muscle cells (right) are stained but weaker than in Fig. 2a.

Fig.2d
Insufficient staining. Same mAb as in Fig. 2a, same fields. No staining of the leiomyoma (left) can be discerned. To the right, staining of lamina muscularis mucosae is moderate while the vessels are unstained.

SN/MV/LE 25-4-2011