Mismatch Repair Genes (MMR) Templates for Adrenocortical Carcinoma

MMR Adrenal template 1: All stains positive

Immunohistochemical stains on this adrenocortical carcinoma demonstrate the presence of MLH1, PMS2, MSH2 and MSH6 protein expression by the tumor cells. These results are indicative of intact DNA mismatch repair (MMR) function within this tumor. These results indicate that it is highly unlikely that this patient has Lynch syndrome.

MMR Adrenal template 2: MLH1 and PMS2 both negative; MSH2 and MSH6 both positive

Immunohistochemical stains on this adrenocortical carcinoma demonstrate the absence of MLH1 and PMS2 protein expression with intact expression of MSH2 and MSH6 proteins. This combination of findings indicates this patient most likely has Lynch syndrome with a germline mutation of MLH1. Genetic counseling and additional genetic testing may be indicated.

MMR Adrenal template 3. PMS2 negative, all others positive.

Immunohistochemical stains on this adrenocortical carcinoma demonstrate the absence of PMS2 protein expression with intact expression of MLH1, MSH2 and MSH6 proteins. This combination of findings indicates this patient most likely has Lynch syndrome with a germline mutation of PMS2. Genetic counseling and additional genetic testing may be indicated.

MMR Adrenal template 4. MSH6 negative, all others positive.

Immunohistochemical stains on this adrenocortical carcinoma demonstrate the absence of MSH6 protein expression with intact expression of MLH1, MSH2 and PMS2 proteins. This combination of findings indicates this patient most likely has Lynch syndrome with a germline mutation of MSH6. Genetic counseling and additional genetic testing may be indicated.

MMR Adrenal template 5. MSH2 and MSH6 both negative; MLH1 and PMS2 both positive

Immunohistochemical stains on this adrenocortical carcinoma demonstrate the absence of MSH2 and MSH6 protein expression with intact expression of MLH1 and PMS2 proteins. This combination of findings indicates this patient most likely has Lynch syndrome with a germline mutation of MSH2. Genetic counseling and additional genetic testing may be indicated.

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