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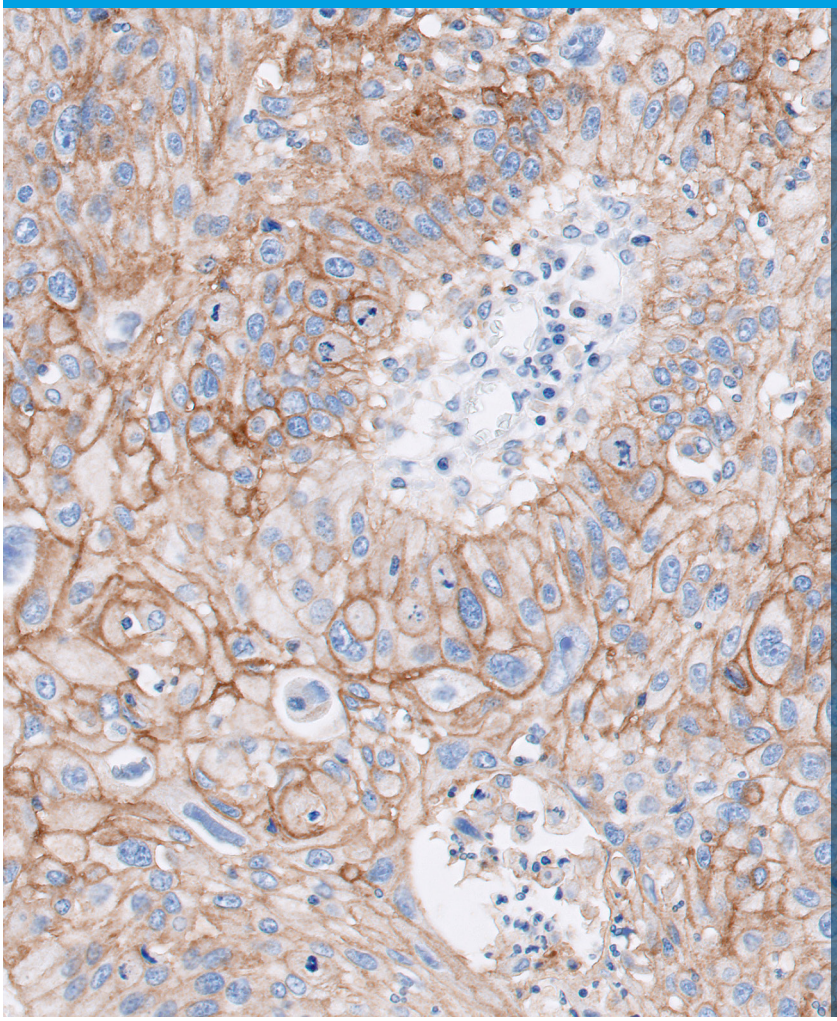
PD-L1 IHC 28-8 pharmDx Is CE-IVD Marked to Identify Esophageal Squamous Cell Carcinoma (ESCC) Patients for Treatment with OPDIVO® + Chemotherapy or OPDIVO® + YERVOY®

More personalized cancer results.
One test makes it possible.



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Trusted Answers

There Is Increasing Scientific Evidence that Highlights the Role of PD-L1 Expression in the Prognosis of ESCC.[1, 2, 3]

PD-L1 IHC 28-8 pharmDx is used to measure the proportion of PD-L1 expression in cancer tissue or cells and is indicated as an aid in identifying ESCC patients for treatment with OPDIVO (nivolumab) in combination with fluoropyrimidine and platinum-based chemotherapy or OPDIVO (nivolumab) in combination with YERVOY (ipilimumab).

Esophageal Cancer Report 2020[4]

604,100 new cases

estimated **544,076** deaths

Global Rankings

7th in incidence

6th in mortality

Equating to one in every 18 cancer deaths globally[4]

- Results of PD-L1 testing with PD-L1 IHC 28-8 pharmDx in CheckMate-648[5] study indicate its use as an aid in identifying ESCC patients with ≥ 1% tumor cell expression, for treatment with nivolumab in combination with fluoropyrimidine and platinum-based chemotherapy or nivolumab in combination with ipilimumab.
- PD-L1 IHC 28-8 pharmDx has been analytically validated for specificity, sensitivity, and reproducibility, and shows high clinical utility across various indications.[6]

PD-L1 IHC 28-8 pharmDx is the only CE-IVD marked diagnostic aid to identify ESCC patients for the treatment with OPDIVO (nivolumab) in combination with fluoropyrimidine and platinum-based chemotherapy or OPDIVO (nivolumab) in combination with YERVOY (ipilimumab). OPDIVO (nivolumab) + fluoropyrimidine and platinum-based chemotherapy demonstrated clinically meaningful improvements in overall survival (OS) and progression-free survival (PFS), and also demonstrated a clinically meaningful improvement in OS with OPDIVO (nivolumab) + YERVOY (ipilimumab), compared with chemotherapy alone.

References:

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2. Hong Y. and Ding Z-Y. PD-1 Inhibitors in the Advanced Esophageal Cancer. *Front. Pharmacol.* 2019, doi: 10.3389/fphar. **2019**.01418
3. Guo W., Wang P., et al. Prognostic value of PD-L1 in esophageal squamous cell carcinoma: a meta-analysis. *Oncotarget.* **2018**, 9(17), 13920–13933
4. Sung. H., Ferlay. J., et al. Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries, *CA. Cancer. J. Clin.* **2021**, 71, 209–249.
5. Doki, Y.; Ajani, J.A.; Kato, K.; et al. Nivolumab Combination Therapy in Advanced Esophageal Squamous-Cell Carcinoma. *N. Engl. J. Med.* **2022**, *386(5)*, 449–462.
6. PD-L1 IHC 28-8 pharmDx Instructions for Use.

CheckMate-648 is a randomized phase 3 study to compare OPDIVO (nivolumab) + fluoropyrimidine and platinum-based chemotherapy or OPDIVO (nivolumab) + YERVOY (ipilimumab) versus chemotherapy alone, in patients with unresectable advanced, recurrent or metastatic previously untreated ESCC.

CheckMate-648 results highlight OS and PFS benefit from OPDIVO (nivolumab) + fluoropyrimidine and platinum-based chemotherapy and OS benefit from OPDIVO (nivolumab) + YERVOY (ipilimumab) in all ESCC patients with ≥ 1% tumor cell expression.

Chemo Nivo + Chemo Nivo + Ipi

Median OS and PFS (mo) (95% CI)

OS* data (months) for patients with ≥ 1% tumor cell expression

9.07 (7.69, 9.95)

15.44 (11.93, 19.52)

13.70 (11.24, 17.02)

HR# : Nivo + Chemo; 99.5% CI: **0.54** (0.37–0.80)

Nivo + Ipi; 98.6% CI: **0.64** (0.46–0.90)

PFS^ data (months) for patients with ≥ 1% tumor cell expression

4.44 (2.89, 5.82)

6.93 (5.68, 8.34)

HR# : Nivo + Chemo; 98.5% CI: **0.65** (0.46–0.92)

*OS: Overall Survival | ^PFS: Progression-free Survival | #HR: Hazard Ratios

HR is based on a "Stratified Cox proportional hazards model".

Report confidently using PD-L1 IHC 28-8 pharmDx

- Integrate PD-L1 IHC 28-8 pharmDx into your Dako IHC setup without changing the staining workflow
- Preprogrammed, validated protocol
- Ready-to-use reagents and control slides optimized for Autostainer Link 48
- Comprehensive educational and training resources are available to enable your lab to optimize your workflow and shorten the turnaround time

Benefits of early testing with PD-L1 IHC 28-8 pharmDx

Early PD-L1 testing is not only important for oncologists to guide treatment decisions, but also provides added benefits.

Sample availability

Incorporating PD-L1 IHC 28-8 pharmDx testing in the diagnostic investigation of esophageal squamous cell carcinoma patients ensures sample availability at the time of diagnosis.

Patient care

Early testing may ensure availability of results during the initial treatment, planning, and patient dialogue, eliminating the need to wait for testing.

Laboratory efficiency

Can be incorporated during other IHC and molecular testing for patients.

PD-L1 IHC 28-8 pharmDx Intended Use

For In Vitro Diagnostic Use

PD-L1 IHC 28-8 pharmDx is a qualitative immunohistochemical assay using Monoclonal Rabbit Anti-PD-L1, Clone 28-8 intended for use in the detection of PD-L1 protein in formalin-fixed, paraffin-embedded (FFPE) non-squamous non-small cell lung cancer (nsNSCLC), squamous cell carcinoma of the head and neck (SCCHN), urothelial carcinoma (UC), melanoma, gastric adenocarcinoma, gastroesophageal junction (GEJ) adenocarcinoma, and esophageal carcinoma tissues using EnVision FLEX visualization system on Autostainer Link 48.

PD-L1 protein expression in nsNSCLC, SCCHN, UC, muscle invasive urothelial carcinoma (MIUC), melanoma, and esophageal squamous cell carcinoma (ESCC) is determined by using % tumor cell expression, which is the percentage of evaluable tumor cells exhibiting partial or complete membrane staining at any intensity.

PD-L1 protein expression in gastric adenocarcinoma, GEJ adenocarcinoma, and esophageal adenocarcinoma is determined by using Combined Positive Score (CPS), which is the number of PD-L1 staining cells (tumor cells, lymphocytes, macrophages) divided by the total number of viable tumor cells, multiplied by 100.

Companion Diagnostic Indications

Tumor Indication	PD-L1 Expression Clinical Cutoff	Intended Use
MIUC	≥ 1% tumor cell expression	PD-L1 IHC 28-8 pharmDx is indicated as an aid in identifying MIUC patients for treatment with OPDIVO® (nivolumab).
ESCC	≥ 1% tumor cell expression	PD-L1 IHC 28-8 pharmDx is indicated as an aid in identifying ESCC patients for treatment with OPDIVO® (nivolumab) in combination with fluoropyrimidine and platinum-based chemotherapy or OPDIVO® (nivolumab) in combination with YERVOY® (ipilimumab).
Gastric, GEJ, or Esophageal Adenocarcinoma	CPS ≥ 5	PD-L1 IHC 28-8 pharmDx is indicated as an aid in identifying gastric, gastroesophageal junction, or esophageal adenocarcinoma patients for treatment with OPDIVO® (nivolumab) in combination with fluoropyrimidine and platinum-based chemotherapy.

PD-L1 expression (≥ 1% or ≥ 5% or ≥ 10% tumor cell expression), as detected by PD-L1 IHC 28-8 pharmDx in non-squamous NSCLC (nsNSCLC) may be associated with enhanced survival from OPDIVO® (nivolumab).

PD-L1 expression (≥ 1% tumor cell expression), as detected by PD-L1 IHC 28-8 pharmDx in SCCHN may be associated with enhanced survival from OPDIVO® (nivolumab).

PD-L1 expression (≥ 1% tumor cell expression), as detected by PD-L1 IHC 28-8 pharmDx in urothelial carcinoma may be associated with enhanced response rate from OPDIVO® (nivolumab).

PD-L1 expression (≥ 1% or ≥ 5% tumor cell expression) as detected by PD-L1 IHC 28-8 pharmDx in melanoma may be used as an aid in the assessment of patients for whom OPDIVO® (nivolumab) and YERVOY® (ipilimumab) combination treatment is being considered.

See the OPDIVO® and YERVOY® product labels for specific clinical circumstances guiding PD-L1 testing.

Please go to **www.agilent.com/library/eifu** and find the correct IFU version for your Kit Lot Number.

Check the local OPDIVO and YERVOY product labels for approved indications and expression cutoff values to guide therapy.

This information is subject to change without notice.

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